Target-Based Interpersonal Trust: A Model and Cross-Cultural Comparison

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Abstract

This research is aimed at exploring target-specific interpersonal trust cross-culturally. An Interpersonal Trusting Behavior Scale (ITBS) was developed; and a general trusting behavior model was established, and its various modified forms were discussed; then the comparisons of target specific trust were conducted among college students from three different cultural and developed societal settings: the Mainland China, Hong Kong, and the United States.

The results showed: (a) the ITBS is satisfactorily reliable and valid, and also equivalent cross-culturally; (b) the model is efficient in predicting the likelihood of one's trusting behavior towards a target person; it is generalizable in different cultures as well; (c) the target-based trust is mainly determined by one's expectancy for positive rewards in exchange relationship with the target person; one's evaluation of negative outcomes (costs), of positive outcome (rewards) to be resulted from one's trusting behavior, and trustworthiness of the target person may also play important role in one's decision to enact trusting behavior; (d) in cross-cultural comparisons, it is the level of industrialization of a society rather than culture itself in terms of collectivism-individualism that has major impact on the target specific interpersonal trust.

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Chapter One

A General Introduction To The Present Study

Trust has never been a topic of mainstream social psychology. Neither the behaviorists in the early stage of development of social psychology nor the modern cognition-oriented psychologists have devoted themselves to focusing on the concept. It is not because the concept is an unimportant one in both theoretical constructing and our daily experiences, just in contrary, many of these researchers have taken it for granted to treat the concept as a kind of ever-ready background, and presented it in their theories whenever they thought it necessary to call upon. So, there is no wonder why less empirical evidence and relatively more casual definitions could be found in the literature.

The concept of trust is of importance in the research of interpersonal relationships. The basic interpersonal relationships are cooperation and competition. Many theories assumed that human beings are self-interest seeking animals. However this not only means that human being is motivated by selfishness, but also that human being would not undertake predatory behaviors in the interest of its own. So they compete each other, and cooperate with each other at the same time (Gambetta, 1988).

They compete for having the resources they lack, they

cooperate for producing the resources they need. But the resources are limited, resource scarcity is obvious everywhere in the world, even if in the most developed country. So it seems that cooperation rather than competition is the better way to create more resources to meet people's need. People have to exchange resources with each other through cooperation. But there are always the situations in which someone is not quite sure if his partner(s) is really sincere to cooperate, rather than to compete by taking advantage of him. Trust is required, then, in such an uncertain situation. Trust can help develop, maintain, and promote the relationships of cooperation among people.

The distinction between micro-level trust and macro-level trust is relevant in the present study. Because at macro-level, researcher mainly focus their attention to intergroup trust, such as trust between political parties, between businessmen and consumers, even between nations; but at micro-level, the main interest of researchers is in interpersonal trust---trust occur between individual persons (Haas, 1981; Gambetta, 1988; Zucker, 1986).

The primary purposes of the present study are to explore the concept of trust at the micro level---interpersonal relationship in an uncertain situation, and then to compare this interpersonal trust cross-culturally to help us understand the concept more thoroughly.

Before going to the conceptualization of trust concept used in the present study, it is necessary for us to go over the previous researches in the field, and to have a general picture about them.

A variety of definitions of trust has been provided in the literature of psychology, sociology, and economics. We list below several of them (though not all of them, they are primary ones) in a hope to find out the common cores of the concept.

1. Basic trust is a global component of one's personality, which develops in one's early childhood during which an infant learns that he can trust the world in the form of his mother that she will come back and feed him the right thing in the right quantity at the right time (Erikson, 1969). So Erikson saw trust as a part of one's healthy personality, he even made the contrast of trust-distrust a phrase of personality development in one's childhood. Worchel (1979) commented that in Erikson's personality theory, the concept of trust is almost synonymous with that of reliance on another's integrity, and that of healthy personality.

2. From the perspective of social learning theory (Rotter, 1954), Rotter (1967) defined the interpersonal trust as "a generalized expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon" (p.651).

By expectancy he meant that an individual believes that a given behavior will lead to a particular outcome or reinforcement in an ambiguous situation and the preference value of that reinforcement for the individual in that situation. So, when one trusts a social object (a person or a group) in a risk and ambiguous situation, one has to rely on one's generalized expectancy from one's past experiences.

3. Mellinger (1956), Larzelere and Huston (1980) regarded trust as an expressed confidence in another's intention and motives, and a belief in sincerity of another's word and action, or another's honest and benevolence. In contrast, by distrust, one means "the feeling that another's intention and motives are not always what he says they are, that he is insincere or has ulterior motives" (Mellinger, p. 304).

4. Deutsch conceptualized trust in an operational way: "(a) the individual is confronted with an ambiguous path, a path that can lead to an event perceived to be beneficial (Va+) or to an event perceived to be harmful (Va-); (b) he perceives that the occurrence of Va+ or Va- is contingent upon the behavior of another person and (c) he perceives the strength of Va- to be greater than the strength of Va+. If he chooses to take an ambiguous path with such properties, I shall say that he makes a trusting choice. If he chooses not to take the path, he makes a

distrusting choice" (1951, p. 575). That is to say, when a person desires to get something in a risky situation in which he/she may not be sure of getting what to want but may lose what to have, and if he/she still persists on the pursuit, then he/she has to trust the other person(s).

5. Trust has been completely "conceptualized as a process of engaging in certain types of dependent behavior which are related to favorable perceptions of the trustworthiness of another person in somewhat risky situations where the expected outcomes that are dependent upon other persons are not known with certainty" (Wheeles & Grotz, 1975, p. 4).

6. Trust is a decision-making process in a social exchange situation (Conviser, 1973). Two of the key factors in this process are one's expected outcome, and one's control over another person in the relationship.

7. Trust is a reliance upon the communication of behavior of another person in order to achieve a desired but uncertain objective in a risky situation (Giffin, 1967, 1971). Or trust is a reliance upon information received from another person about uncertain environmental state and its accompanying outcome in a risky situation (Schlenker, Helm, & Tedeschi, 1973).

8. "Trust (or, symmetrically, distrust) is a particular level of the subjective probability with which an agent assesses that another agent or group of agents

will perform a particular action, both before he can monitor such action and in a context in which it affects his own action" (Gambetta, 1988, p. 217). So, when one trusts someone, it is implicitly meant that one thinks the probability that another person will perform an action that is beneficial or at least not detrimental to oneself is high enough for him/her to consider engaging in some form of cooperation with the target person.

From the above list of trust definitions, two general approaches or basic orientations can be classified. The first approach regards trust as an individual trait, such as the Rotter's generalized expectancy, Erikson's global component of personality, a general belief (Larzelere & Huston, Mellinger). It assumes that people are generally different in their trust of others. This difference comes from their previous experience, so, the definitions in this approach are mainly based on social learning theories and personality development theories (Shaw & Costanzo, 1985). But this kind of trust definitions has not been followed intensively afterward. Actually most of trust researchers talked about the concept in terms of some types of relationships, either the interpersonal relationships, or the intergroup relationships.

The second approach found its roots mainly in social exchange theories (Roloff, 1981). It assumes that people trust others because they desire something they lack, so

that they have to engage in various social exchanges with the other persons. Trust is then needed when such exchanges involve a risky situation. In this approach, trust is mainly a process of action that is involved in one's relationship with other persons (Deutsch, Conviser, Wheeles & Grotz).

But both of these orientations in trust definitions have their common bases: (a) they all assumed explicitly or implicitly that trust must have its target, no matter whether this target is a person, a group of persons, an institution or even a social system; (b) in all these definitions of trust except the one given by Erikson, there are concepts of the desired or expected outcomes, and the risk, or uncertain situation. Thus, when coming down into the micro-level on these common ground, we may conclude that trust is most likely related to interpersonal relationships in which one person wants to have outcomes (or resources) one desires in a risky situation from other target person.

In terms of relationship, one's trust must be perceived by the target person, therefore trust must be outwards expressed in one's behavior (Wheeles, 1978; Wheeles & Grotz, 1975). But because these trusting behaviors are bound to be exposed to a risky situation, the outcomes of behaviors can not be definitely predicted, either positive outcomes (rewards) or negative outcomes

(costs) can be possible. In this sense, the behavior which shows one's trust is a kind of risk-taking behavior (Deutsch,1951). From the above consideration, we follow the second approach in the present study to serve our primary purposes.

Besides the two basic orientations of trust research, three kinds of mainly used method can also be categorized. They are the measurement method, the experimental method, and the method of theoretical analysis. The widely used measurement scale is the Rotter's generalized Interpersonal Trust scale (ITS, 1967). In most researches, the ITS scale score was used as a criterion to divide subjects into the groups of higher trusters and lower trusters, and then the two groups of subject were asked to undertake different experimental conditions or to go through various personality assessments so as to find relations between trust and other variables in question (Garske, 1976; Hochreich & Rotter, 1970; Rotter, 1967, 1971, 1980; Schlenker, et al, 1973).

When using measurement, other psychologists constructed different scales from Rotter's, such as the individualized trust scale (Wheeles & Grotz, 1975) and dyadic trust scale (Larzelere & Huston, 1980; Shumm, 1985). These scales focused on measuring the subject's trust towards specific target persons instead of target groups or some kinds of authority in general, which were included in

the Rotter's scale (ITS).

Still Some others emphasized the experimental method (Deutsch, 1949, 1951; Conviser, 1973). The "prisoner's dilemma game" is the most famous experiment of this kind. Two subjects were brought into a game situation, in which one could choose the way of either cooperation or competition with the other, to win the rewards and to avoid punishment. Usually any information exchange between the subjects was not allowed to create uncertainty. Thus trusting each other becomes quite important if they both want to cooperate and win the rewards, because if only one cooperates, the other competes, then the cooperator can not win but also get more punishment, while the competitor will surely win; but if they both compete, then they both lose.

The third method of analysis is mainly used by sociologists who are concerned with functional aspects of trust at macro-level phenomena, and relationships between trust and social order and social system. Their systematic and creative theories are often instructive (Duck & Perlman, 1987; Haas, 1981; Lewis & Weigert, 1985a., 1985b; Loomis, 1959). For example, They speculated that social norm would be an important constraint effecting on interpersonal trust. "A specific response in an exchange relationship may not be seen simply as habit, or one's normal way of doing things, but as the way one should respond" (Blalock & Wilken, 1979, p. 195). It reminds us

of that when we study trust, even as at micro-level, we still have to keep in mind that target specific trusting behaviors cannot isolate themselves from macro social environment.

In sum, although the previous researches on the interpersonal trust have provided us much useful insight in understanding the concept, we are still left with many problems.

First, the trait approach takes it for granted that trust is an relatively invariant characteristic of a person. But in fact our trust is subject to the specific relationships existing between us and the target persons in real life. Our desires are constantly changing, therefore we often turn to different targets in exchanging something we need with our trust in different situations across times. A girl may trust her mother more than her friend when she is young, but when she has grown up, she may trust her friend more than her mother in disclosing her inner personal feelings; the same girl trusts her teacher more than her classmate in science, but she may trust her classmate to date a boy in school more than her teacher. Obviously, this aspect of trust was overlooked by the researchers in the approach. For instance, although Rotter (1967) admitted that in addition to the generalized expectancy, there is also a specific expectancy which results in one's particular behavior (much like the

differentiating responses) towards a particular situation, in his ITS, the trust scale items are still mostly related to one's general experience and general belief not about the specific target persons in specific situations, but the target groups, the authorities of some kinds, like nation, media, etc., in very broad situation. Of course, with this scale, we cannot clearly understand how trust change in a specific interpersonal relationships.

Second, the experimental game simulation of social reality got many critics, because it was considered too artificial to explain the real complex phenomena of interpersonal trust. In the game situation, stranger-stranger relations were often the only relations under the observation; and there were intentional barriers between subjects to prevent them from exchanging information; furthermore, rewards and punishment were usually given by the third experimenter instead of from targets each other.

But in real life, the relationships with one's family members, friends, and other acquaintances are far more important than that with strangers, so that any reality-oriented trust research must include all these kinds of relationships in it, but not only concerning with strangers. The simulated situations in the prisoner game only reflect a very extreme example of real life, actually in most of our interpersonal relationships, only if we have some information exchanged with target persons, then can we

expect some kind of rewards from them; if this expectation is not ensured, then trust occur between us and these targets. More important, when we trust a target, we expect to get positive outcomes from only this specific person, not anyone else. The rewards one expects from one's wife can not be substituted by anyone's rewards. So, the game experiment could not give us answers either to the questions of what to determine one's trust and how trust varies with different target persons.

Third, although some researchers constructed various individualized trust scales in an attempt to measure the specific interpersonal trust (Larzelere & Huston, 1980; Wheeles & Grotz, 1975), to overcome the weakness of Rotter's generalized trust scale, unfortunately what they actually measured with their scale is inconsistent with what they conceptualized in their definition of trust. They defined trust as a process of dependent behavior which is determined by many elements, one of which is the perceived trustworthiness of the target person, while the individualized trust scale which consists of pairs of adjective words, like that of reliable-unreliable, sincere-insincere, etc., measured only the perceived trustworthiness of targets. They did not further specify relationships between trust and other determining elements in their definition.

Based on the above discussion, we confine ourselves in

the present research to the study of the most basic trust form---interpersonal trust occurring between two persons, or the target-specific interpersonal trust, and define the target-specific interpersonal trust as:

one's behavioral intention towards a specific target person; the behavior, if enacted in a situation in which one has less control over the target's freedom of action, will lead to greater costs if one's expectation for beneficial outcomes resulting from the behavior is violated by the target person.

The differences between this definition and the previous ones consist in that the present one emphasizes the specific target person for one's trust, and simultaneously specifies the relationships between trust and other mostly related factors. Several points about this definition should be further explained herewith.

1. Trust can be broadly regarded as a potential psychological variable, like an attitude, a belief, or a generalized expectancy, etc., but as long as it comes into social exchange relationships among individual persons, it becomes definitely a behavioral intention. To trust a target means to intend to enact a trusting behavior towards the target. Trust has already been there in one's mind before a behavior is enacted. So, in this sense, trust is a behavioral intention in two person exchange relationship.

2. As said before, a trusting behavior must have its

target, in the present study, the target is a specific individual person. We shall discuss the important factor--target persons in detail in chapter Two.

3. Trust can be promoted by the reciprocal beneficial behaviors between two persons. It has been proved by many researches (Aguilar, 1984; Butler, 1986; Jongsma. 1973; Wheeles, 1978), but it is not our concern here. In the present study, we mainly care about what makes a person turn his/her trusting intention into a trusting behavior, and how one's trust alters with different target persons. So, the problem of how a target person accepts one's trusting behavior and makes returns to the actor will not be studied here.

4. According to social exchange theories, the beneficial or positive outcomes can be anything that leads to a pleasant feeling inside a person. Foa and Foa (1974) classified six types of resource that can be exchanged as either a positive outcome or a negative outcome. They are money, goods, information, service, social status, and love. In general, these six resources are not always available to anyone, so that one desires them, values them, and feels pleasant after getting them.

5. In contrast, cost means anything that brings about unpleasant feeling in a person. It can be induced by either not being able to get, or having lost one of those six resources. It is obvious that if one does not enact a

trusting behavior, one will not be able to get rewards. To the person this is one kind of cost because one's desire is not satisfied. Furthermore, if one enacts the behavior, one may probably not be able to get rewards (cost 1), but also lose something one has (cost 2). So, it may be a double cost; that is why we say "greater cost" in our definition of trust. Therefore, to trust a person also means to make oneself more vulnerable in a risky situation. Deutsch (1964) gave an example. A mother left her baby in her neighbor's care when she went to work. She trusted the neighbor and expected that her baby would be in a good care. But if the neighbor would be careless this time, the baby would get hurt, then the mother would suffer a lot, not to say her expectation of the health baby.

6. The expectation (or expectancy) in the definition indicates one's subjective probabilities of both rewards and cost. It is another possible important factor in deciding one's trusting behavior, because in Gambetta's definition (1988), trust was considered an equivalence of subjective probability. We shall discuss the expectation in more detail in chapter Three.

7. One's control over the target's freedom of action will be also discussed later in chapter Three. Here is just a brief introduction. In a society, no one has an absolute freedom to choose his actions, because there are many constraints in a society, such as the social norm

mentioned above. In the two person relationship, the constraint (or control) may pertain to one's power to retaliate against the target person if he would violate one's trust. For example, if one is strong enough over the target, or if he has enough resource that the target needs, etc., one is said to have power to threaten the target to be afraid of violating one's trust. The more power one has, the less freedom of action the target gets; but if one completely controls the target, there will be no room for trust. Therefore, trusting a target person means limited control (power) over the target's action (Conviser, 1973).

8. Another relevant factor to trust is one's perceived trustworthiness of the target person. The perceived trustworthiness, like belief or confidence, is a kind of subjective judgment on reliability and honesty of a person. The judgment might come from one's experiences in the past with the target, or from a social stereotype about people of an ingroup and an outgroup (see chapter Four). It is apparent that we tend to have a higher perception of trustworthiness in a target person if the person almost always acted in the way he/she promised in the past, or if the person comes from a social group to which we belong.

However, we must notice that trust is a different concept from that of perceived trustworthiness. For example, supposed that a boy knows his artist father is a highly trustworthy person, but when he gets problems in

mathematics, he surely trusts his mathematical teacher more than his father. That means, our trusting behaviors are probably determined by many other factors other than the perceived trustworthiness of the target person. As we indicated before, these two concepts were confused in the previous studies.

So far, we have discussed the definition of trust adopted in the present research, meanwhile we need to specify a research method, too. Although it is hardly to directly measure trust---one's behavioral intention, Triandis (1977) suggested a way to measure indirectly behavioral intention, that is by the likelihood of behavior: the higher the likelihood of a behavior, the more intense the behavioral intention. So, in the present study, we will measure one's trust towards a specific target person by measuring the likelihood of trusting behavior enacted to the target.

The last problem that should be answered in this general introduction is whether the concept of trust has the same meaning to people in different cultures. It is important to have an equivalent concept if we want to study it cross-culturally. Difference only emerges against the similarity background. In a cross-cultural study, Triandis and Vassiliou (1972) compared various concepts in American, Greek, Japanese, and Indian cultures. One of these concepts was trust. They concluded that the concept of

trust is equivalent in its meaning across cultures in that the concept has nearly the same antecedents and consequences in these four cultures. This is encouraging, however we shall test in the present study if the conclusion is convincing from a different perspective.

This study actually contains three parts of work. In chapter Two, we will test the reliability and validdty of a new interpersonal trust scale which can be used to measure one's trust towards any specific target person. In chapter Three, we will construct a trusting behavior model, which can be used to predict the likelihood of one's trusting behavior efficiently as well as simply. In the last chapter, chpater Four, we will compare interpersonal trust towards a wide range of target persons cross-culturally.

Chapter Two

An Interpersonal Trusting Behavior Scale (ITBS)

Part One

Introduction

In chapter One we have introduced the definition of target-specific interpersonal trust, and then briefly mentioned that we shall measure trust indirectly by the means of measuring the likelihood of trusting behaviors. While looking back to the already-existed trusting scales, none of them can be satisfactory in terms of either not focusing on specific target person, or not by means of measuring concrete trusting behaviors. So, a new scale in accordance with the definition of target-based interpersonal trust is naturally required.

As we understand, human behaviors are quite complex, interpersonal trusting behavior is just one special kind of human behaviors. Thus, it is not easy for us to locate trusting behaviors, not only because there is a large variety of behavioral types, but also because meanings of behaviors are often interpreted differently by different people (Although the concept of trust was proved an equivalent one across cultures. see chapter One). In order to have a relatively clear concept system about human behaviors, a lot of researchers (Adamopoulos & Bontempo, 1986; Benjamin, 1974; Foa & Foa, 1974; Humphrey & Benjamin, 1986; Triandis, 1977,) have always been attempting to

categorize or to find out basic dimensions for these behaviors in their researches. Many models of human behavior have been advanced in the psychological literature with an assumption that there is a core component of human nature which controls all human behaviors. Up to today, "the structure of social interaction is frequently presented as a static, multidimensional configuration defined by the axes of association-dissociation (affiliation), superordination-subordination (control) and intimacy-formality" (Adamopoulos, 1986, p. 14).

According to the Benjamin's model of social behavior, which consists of three foci or surfaces and two central dimensions of affiliation and interdependence on each focus (Benjamin, 1974. The first dimension in the model is comparable to the dimension of association-dissociation in other models, and the second is comparable to the superordination or dominance-submission dimension), the trusting behaviors take a position which can be projected significantly and largely on the affiliation dimension rather than on the dominance dimension (Benjamin, 1974). This means that trusting behaviors must be correlated highly with other kinds of associative behaviors, but correlated lowly with social behaviors that are heavily loaded onto the dominance-submission axis. Many other researchers have provided much similar findings to these two dimension structure of social behavior and the relative

position of trusting behavior (Hoskins, 1986; Triandis et al, 1977). For example, in his research, Hoskins found that a factor analysis on a 40 item domination-accommodation scale resulted in two factors, "the first factor was related to communication, assertiveness, trust and resolution of differences, while the 2nd reflects a more rigid domination-accommodation pattern of interaction" (1986, p. 9).

Of course, these pictures of human behavior are still quite general. To us, the problems are: how can we choose trusting behaviors from the pool of affiliation, or associative behaviors, and then select a sample out of these trusting behaviors as trust items in the new scale. There are at least two alternative ways to solve this problem. One way is so-called the expert method--a group of experts decide what behaviors can be trusting items for a scale; the other way is so-called the consensus method--what behaviors can be trust items will be agreed upon by most people of a population. Actually the second method is one of the approaches to establish the face validity of a scale (Allen & Yen, 1979). In the present research we employed this second method to select items--trusting behaviors.

Another problem now facing us is how to select a sample of specific target persons into the new scale. We mentioned in chapter One that the Rotter's generalized

trust scale (ITS) included not only target persons (parents, salesmen), but also target groups, institutions, and authorities of some kinds, so that it can not exactly tell us about how interpersonal trust is occurring between two persons. As a matter of fact, a factor analysis on 25 trust items of the ITS resulted in three factor structure (Tedeschi & Wright, 1980; Wright & Tedeschi, 1975), the first of them was labeled the Political Trust (referring to target groups involved in politics, the media, or national sports contests); the second as the Paternal Trust (referring to expertise, idealists, public opinion polls), and the third as the Trust of Strangers. Only the third factor dealt with the interpersonal relationship. As for power of the ITS in predicting people's behaviors, empirical evidence showed that it was not very high (Schlenker, et al, 1973; Wheeles & Grotz, 1975).

So, we turned to refer to the work done by Wheeles & Grotz (1975), Larzelere & Huston (1980), and Hui and Triandis (1986), in which a number of target persons were specified. In the present study, they were: father, mother, elder brother, elder sister, younger brother, younger sister, spouse, best friend, an averaged friend, boy/girl friend, relative, colleague, classmate, teacher, boss neighbor, doctor, peddler, taxi driver and stranger. We selected a sample of 20 specific target person towards whom subjects rate how likely they would enact trusting

behaviors.

There are two principles behind the selection. First, we assume that one can trust any target person in real life, as long as one desires to engage in an exchange relationship with the target; and the wider the range of selected targets covers, the better the result of trust measurement will explain. So, the results of Hui & Triandis's work (1986), the different degrees of concern shown to targets became a principle, with that we selected target persons from the most concerned people through the least concerned people.

Secondly, we thought that specific persons selected have to reflect to some extent the reality of Chinese societies, because the new scale is developed in Chinese societies. Chinese culture has been influenced by Confucian philosophy over more than two thousand year, it has a long traditional emphasis on keeping its society, especially the five cardinal relations, harmonious (Bond & Hwang, 1982; Yang, 1975). The five Cardinal relations are: the monarch and his subjects, the father and son, the elder brother and younger brother, the husband and wife, the friend and friend. Of these five relations family relations and friend relation take a prior positions. In recent years some Taiwanese researchers claimed that it is necessary to add the sixth relation, the relation of the acquaintance and stranger (Yang, 1986), to this philosophy.

They argued that with the modernization of Taiwanese society, people's social relations have expanded to a larger extent than ever before, and a lot of people outside one's family category have become involved. However, it must be admitted that family members and friends are also important target persons in the western societies (Hui & Triandis, 1986). So, in line with this principle, among the 20 targets we selected, persons, one's family members and friends take a large proportion of the total number.

Part Two

Procedure and Methods

Procedure

In order to collect trusting behaviors as the scale items by the means of consensus method, we had conducted pilot studies separately in Beijing, and in Hong Kong.

In Beijing, we had a group of 45 junior researchers with B. S. or B. A. degrees, and asked them to write down on a piece of paper as many concrete trusting behaviors as possible, as if they were to enact those behaviors to express their trust to someone. Then we listed their responses, which contained 30 behaviors, on a blackboard and asked all of them to vote by raising their hands to decide which one of these 30 behaviors are really expressing trust towards other people. We recorded the frequencies of raising hand for each of behaviors one by one, and selected 27 behaviors whose frequencies were equal

to or greater than 25/45 (the number of agreed students over the total number of students) as the first group (G1) of trusting behavior items.

In Hong Kong, the procedure was roughly similar. We had a group of 20 psychology-major undergraduate students complete 20 sentences, each of which described a concrete trusting behavior towards other people. The incomplete sentence was written in the form of either "If I trust the target person, then I do...to him/her" or "If I do... to the target person, then I trust him/her". From their responses we selected the second group (G2) of 23 trusting behaviors which were at least mentioned by 12 out of these 20 students. Then we pooled the first and second group (G1 + G2) of trusting behaviors, and selected. As the results, a list (G3) of 25 behaviors was selected.

We gave the list (G3) to another group of Hong Kong college students and asked them to rate {against a 6-point scale: no trust at all (0);...; a little trust (3);...; complete trust (5)} how these 25 concrete behaviors express their trust towards other people. Their rating scores were calculated for every behavior, then those behaviors whose mode score were above 3.00 (indicating that one's trust was intense enough in the behavior to be perceived as a trusting behavior by most of other people) were at last selected as the trust items in the new scale.

Through these several steps, we had a 20 item trusting

behavior scale, which covers many exchange relationships, from the material exchange through the affection exchange. We assume that each of these 20 concrete trusting behaviors can theoretically be applied to everyone to any level of likelihood.

With these 20 trusting behavioral items and the 20 specific target persons, we constructed a questionnaire (see Appendix A). When answering this questionnaire, every subject was asked to make a judgment on how likely he/she would enact each of the 20 behaviors towards each of the 20 target persons. The judgment was made on a 6-point scale: 0% probability (0); ...; 40-60% probability (3); ..; nearly 100% probability (5). On the front page of the questionnaire there was an identical instruction to tell subjects how to answer the questions.

Because we worried about the possibility that subjects might feel boring and tiresome to make 400 (20 * 20) responses, we then divided the 20 target person into two groups, the targets with the odd number go to the first group, those with the even number go to the second group. Therefore, one half of subjects will make trusting responses only to the first group of target persons, the other half only to the second group of target. Then the questionnaire with the first group of target persons is called Type One (Q1), that with the second group is called Type Two (Q2). The target persons in Q1 and Q2 are

approximately paired, for instance, "father" in Q1 and "mother" in Q2, "elder brother" in Q2 and "elder sister" in Q1, etc. In this way we can at least keep equivalence on face between Type One and Type Two questionnaires.

To test the validity of the new scale, we had to find out other measurable concepts, which are at least theoretically relevant to the concept to be measured by the new scale. Validities can be convergent or discriminant validity (Allen & Yen, 1979). As reviewed in the introduction section of this chapter, many models of human behavior have claimed and confirmed that trust loaded heavily onto the associative behavioral dimension, but had nonsignificant loading onto the dominant behavioral dimension.

Accordingly, by using the concept of dominance as a discriminant validity testing concept, we drew 12 items from Ray's General Population Dominance Scale (1981) to be used (see Appendix A). The only thing in this scale we changed was the scoring method. In Ray's research, the items were scored "1" for "yes", "2" for "?", "3" for "no". In the present study, we converted it into a 6-point scale for all these items: "not at all" (0); ...; and "completely yes" (5). The higher the score, the more the dominance tendency. These 12 items then underwent the process of translation and back-translation between Chinese version and English one.

Because the Dominance Scale was constructed and used in western cultures, and its availability to the subjects of another culture is unknown, we first submitted the 12 items of the scale to factor analysis and found a two factor solution which accounted for 40% of all variance. The first factor is loaded with 6 items having coefficients above 0.40 (three positively and three negatively loaded). These 6 items were clearly a bi-polar scale items and can be more easily explained by the Chinese as expressing the dominance and submissiveness than the other items loaded on the second factor. Finally we selected these 6 items to be the dominance measurement scale. They are listed below:

1. Do you tend to dominate the conversation?
2. Are you easily swayed by other people's opinions?
3. Do you tend to boss people around?
4. Would you dislike standing out from the crowd?
5. Does the idea of being a leader rather attract you?
6. In an argument or discussion, will you argue for your own point of view even though you are in the minority?

For the convergent validity of the new scale, we choose 6 items from the Self-Disclosure Scale edited by Yang and Hwang (1980) in Taiwan (see also Appendix A). Because the scale is also target-specific, we added them to the ITBS scale, and had subjects respond to them and the 20 trust items together towards each of 20 target persons against the same 6-point scale in the ITBS.

In Yang and Hwang's research, three factors emerged among all self-disclosure variables from a factor analysis, and were given names as: (a) the general subject of a talk,

such as his/her interest, expression of wishes and the like; (b) the sex-related subject of a talk; (c) the family-related subject of talk. The 6 items were selected from the first factor of general talk subjects, because in their study, Yang and Hwang (1980) concluded that the rank of target persons to whom subjects are likely to make self-disclosure in this factor is that of mother, best friend, father, and general friend. They argued that in long relationship with one's parents and best friends, subjects could have considerable trust in them, so that they do more self-disclosing towards these target persons; while with general friends, they could not have as much trust as towards their parents and best friends, so, they make relatively less self-disclosures.

The relation of trust and self-disclosure is actually a major topic in interpersonal communication research. The hypothesis that there is a large positive relation between trust and self-disclosure has been getting many empirical supports (Benedict, 1971; Cozby, 1973, Pearce & Sharp, 1973; Wheeles & Grotz, 1977). For example, Wheeles and Grotz reported that "a higher level of individualized (target-specific) trust was found to be associated with more consciously intended disclosure and a greater amount of disclosure" (1975, p. 7).

Part Three

Results

The Reliability Of The ITBS

Table 2.1 shows the averaged item-total correlation coefficients across 20 target persons for each trusting behavioral item in each cultural sample.

Insert Table 2.1 about here

As an index to make a final decision on which items should remain in the scale, we set the criterion at $\underline{r}$=.30. After this, we found that all behavior items remained in the scale except for item No. 6 and No. 8. Actually, after these two items were picked out, all Cronbach alphas for each of target persons increased. As the result, the final Interpersonal Trusting Behavior Scale with 18 trust items has quite satisfactory reliabilities for targets, as shown in Table 2.2.

Insert Table 2.2 about here

From the above table we can see that the reliabilities of the new scale are very high, indicating that all 18 items are consistent to measure the target-based interpersonal trust. The averaged reliability of the scale across all 20 target persons is 0.87.

We can also see from the above two tables that the correlation coefficients are quite consistent cross-culturally. It indicates that the 18-item Interpersonal Trusting Behavior Scale (ITBS) is equivalent for all

subjects from different cultures. The averaged reliabilities of the scale across all 20 target persons are 0.87, 0.88, 0.85 for the Mainland Chinese, Hong Kong Chinese and American respectively.

The Validities Of the ITBS

We examined the reliability (Cronbach alpha) of the two validity scales---the self-disclosure scale and the dominance scale. The results are shown in Table 2.3 and Table 2.4 below. Because the items in the self-disclosure scale is also target-specific, in Table 2.3 there are 20 reliability coefficients computed for each of the 20 target persons in the research.

Insert Tables 2.3 & 2.4 about here

These satisfactory reliabilities made us confident to use the two scales to measure the construct validity of the Interpersonal Trusting Behavior Scale (ITBS). Table 2.5 shows the results of correlation coefficients between the ITBS and two validity testing scales for each of 20 target persons.

Insert Table 2.5 about here

From the above Table 2.5, we can say that the ITBS does have quite satisfactory convergent and discriminant validities in terms of that it has the significantly high correlations with the self-disclosure scale for all target

persons except for the target of "mother", and the near zero correlations of nonsignificance with the dominance scale across all target persons.

Why did only the target of "mother" have a problem? When we looked at original data, we found that subjects almost always gave the target "mother" consistently high trust scores, so that the variance of trust scores for the "mother" target was the smallest among all target persons (M = 4.29, Sd = 0.29; but all Sds for other targets were above 0.40: for example, M = 4.45 and Sd = 0.46 for "spouse", and M = 3.80, Sd = 0.88 for "father"). Thus the correlation coefficients between the trust score and the other two scale scores can not be high.

In sum, we have constructed a new Trusting Behavior Scale to measure target specific interpersonal trust, which consists of 18 behavioral items. (a) The scale has high internal consistency among its 18 items, with an average item-scale correlation coefficient of 0.533; (b) The scale is highly reliable in regard to its quite satisfactory reliabilities across all 20 target persons, its average Cronbach alpha is 0.88; (c) The scale is theoretically and empirically validated concerning with its high construct validities. What it to measure is highly correlated with the measured concept of Self-Disclosure, with an average 0.639 correlation, and is not related at all to the measured concept of Dominance, with an average correlation

coefficient of -0.021.

Part Four

Discussion

Although the concept of trust was mentioned, and various tools of measurement were developed before, never before were there studies which were deliberated to construct a scale measuring target specific interpersonal trusting behaviors. In present research we have constructed a scale, which is called Interpersonal Trusting Behavior Scale (ITBS), to measure the target-based interpersonal trust in a peculiar relationship between subjects and a specific target person.

It will be recalled that the development of the ITBS began with the selection of trusting behaviors, so that the items we used to measure trust were all the concrete trusting behaviors. In the scale we had 18 such behavior items, asked subjects to decide to what extent he or she is likely to enact each of these 18 behavior towards a target person. There were 20 target persons, from one's family members through stranger in the present research.

Of course the target persons are not fixed in any sense, they are liable to whatever substitutions in the future study to fit aims of interested scholars themselves. It is actually one of our purposes to construct such a scale that is to measure target-based trust on one hand, but on the other hand that is to be free of specific

persons, that is to say, the scale can be used to assess trust expressed to any persons.

The ITBS has quite highly satisfactory reliabilities across different 20 target persons. That is not only because we had several rounds of item selection with many methods, which guaranteed high consensus of content on each item among subjects, but also because these trusting behaviors were concrete ones whose meaning could be easily and accurately understood by subjects. Besides, what should be emphasized here is that this 18 item scale has high reliabilities for all 20 target persons across all three cultural settings, which means, no matter whoever the target is and wherever subjects come from, the scale can measure one's trust towards the target equivalently without exception. Though there are only 20 targets in the present study, we can expect with much confidence that the scale will be still highly reliable even if more target persons are included in the future research. We would call it "target-based but target-free" trust scale. This makes comparisons among target persons meaningful, for the trust index (mean score of the scale) remains the same meanings regardless of targets and subject's cultural background.

Another very important metrical property of the scale is its validity. The ITBS has also highly satisfactory convergent validity and discriminant validity, which guaranteed what we measured with the scale was really what

we wanted to measure--the target-based interpersonal trust. High convergent validity was indicated by the high correlation between the ITBS and the Self-Disclosure Scale. It is believed, as shown in various definitions of trust, that the concept of trust covers a broader range of one's psychological characteristics, among which is the self-disclosure. The results of those studies claimed that it is always almost the case if a person trusts another one, he or she is more likely to disclose himself/herself to the other (Wheeles, & Grotz, 1975, 1977). Then it is quite reasonable for us to infer that if the ITBS measure the interpersonal trust, its scores must have high correlations with that of the Self-disclosure. Actually it did.

The concepts of trust and self-disclosure are so closely related that even in the ITBS there are two items directly describing one's self-disclosure behaviors to a target person. Did these two items have an effect of increasing unsuitably convergent correlation between the ITBS and the SDS? To answer the question, we computed Pearson correlation coefficients again between the ITBS scores and the SDS scores for each of 20 target persons after dropping off the two related items. The results were quite similar with those in Table 2.5. The correlation coefficients for all targets, except for the target of "mother" (all $\underline{r} = 0.18$, $\underline{p} > 0.5$), were significantly high (all $\underline{r}$s > 0.45, $\underline{p} < .05$, with mean of $\underline{r} = 0.65$). So, the

high convergent validity of the ITBS is not antifactoral.

We selected the Dominance Scale for several reasons: (1) as explained in the introduction section, trust and dominance should locate on two vertical dimensions in human being behavioral space, thus theoretically trust should have no relation with dominance; (2) empirically, there was some indirect evidence showing low relation between trust scores and dominance scores (Hoskins, 1986). As results showing, there was no relations at all between what we measured with the ITBS and that with the Dominance scale. We were very confident at this point that the ITBS can be used in the following studies.

Chapter Three

Model of Interpersonal Trust

Part One

Introduction

In chapter One we assumed, following most of the theories about human behavior, that an individual trusts a target person in a risky situation just because he/she is motivated to get rewards (a kind of resource he/she lacks), which the individual is unlikely to get by other means, such as coercion. In this situation, the individual makes himself vulnerable, and takes a risk of losing the resource he/she has. Therefore, the problem entailed by the assumption becomes how one decides to trust a specific target person in such a risky situation, or in other words, what the salient factors that determine one's trusting behavior are?

Various theoretical models have been put forward to answer the question about human behavior in general, and the interpersonal trusting behavior in particular.

In sociology and psychology, social exchange theories are applied to the research of interpersonal relationship. The central theme of these theories is that people join together (have relationships with each other) only insofar as they believe and subsequently find it in their mutual interest to do so. The premise behind the theme is that through interaction, people learn about each other, and

that over time they try as best as they can to balance their social involvements so as to satisfy as fully as possible their private interests. Therefore their social behavior is in large measure determined by the rewards and costs, or by the expectation of rewards and costs (Blau, 1964; Burgess, & Huston, 1979; Homans, 1961; Kelly, 1979; Thibaut and Kelly, 1959;). A simple summary of the Homans' exchange theory would state that individuals in a dyadic social interaction will enact those behaviors which have a high probability of obtaining those reciprocated rewards which are most available.

In economics and psychology, the subjective expected utility theory has been applied widely (Blalock, & Wilken, 1979). The theory assumes that human being can rationally make choices among alternatives to seek maximization of his own rewards and benefit and minimization of his own costs and risks, although some other theorists think that it is impossible for human being to calculate the maximum of rewards for their limited knowledge and information, they prefer the assumption of satisfaction to that of maximization (Simon, 1957). Anyhow, the basic calculations are similar, and based on the subjective probability (expectancy) of an outcome, and the utility (subjected value) of the outcome. The subjective expected utility (SEU) equals to the product of the above variable. One will choose among all alternatives a behavior which has the

largest SEU (Blalock & Wilken, 1979).

In psychology, the reinforcement models, following behaviorist theoretical thinking, stressed that if a behavior results in rewarding stimuli which arouses positive feeling inside individuals in an interpersonal relationship, this particular behavior is most likely to be enacted again; a close relationship will result from continuation of the behavior providing rewarding stimuli among people in the relationship (Backman and Secord, 1959; Bandura, 1977; Rotter, 1954).

In psychology again, the cognitive-consistency models assumed that human being prefer balance or consistency in their cognition. Cognitive imbalance and inconsistency lead to a negative psychological state, and this will be remedied by changing a cognition in the direction of achieving balance. Among them is the equity theory (Adams & Freedman, 1976; Walster, 1973). It states that a person would think a relationship equitable only if he thinks his gained outcomes in relation to his inputs are equal to other's outcomes in relation to other's inputs; if he finds himself in an inequitable relationship, he would experience distress and is expected to follow a cost-benefit strategy to enact a behavior to reduce such distress either by restoring actual equity or by restoring psychological equity to his relationship with other.

As for in the field of interpersonal trust study, the

specific models were mainly formed and developed in light of the exchange theories. For example, in his attempt at establishing a theory of interpersonal trust, Conviser (1973) summarized that one's decision on whether or not to trust another will be derived from a comparison of his preferences with other's perceived preferences, that is to say, his decision would depend upon both his own evaluation of the possible outcomes and his perceptions of others' evaluation, in addition to his control ability and control opportunity over others.

Another model by Brewer (1981) defined interpersonal trust in a outcome matrix of dilemma shown as follows:

Outcome to self

		Self behavior	
		trust(Ts)	distrust(Ds)
Other's behavior	trust(To)	I + B - C	I + B
	distrust(Do)	I - C	I

I--an individual's outcome independent of the other person.
B-value of a benefit received by one person from the other.
C--the cost to one person of giving benefit to the other.
Ts--trusting behavior of self;
Ds--distrusting behavior of self;
To--trusting behavior of others;
Do--distrusting behavior of others;

From the matrix, we can see: (1) if one person engages in trusting behavior (Ts), he must suffer a cost (-C) by giving a benefit to a target without ensuring himself that he could get benefit (+B) because whether or not the target trusts in return is unknown; (2) if one person engages in

distrusting behavior (Ds), he could surely get rid of the cost (no -C) by giving nothing to the target, but he still could not be certain about getting benefit from his behavior, because the other's behavior is still unknown. Through this kind of formal analysis, she concluded that a trusting choice involves an uncertain benefit and a certain cost, whereas a distrusting choice involves an uncertain loss of benefit with a certain avoidance of cost.

The third model of interpersonal trust is from Wheeles and Grotz's theoretical thinking. It is cited here again that trust "has been completely conceptualized as a process of engaging in certain types of dependent behavior which are related to favorable perceptions of the trustworthiness of another person in somewhat risky situation where the expected outcomes that are dependent upon the other person(s) are not known with certainty" (Wheeles and Grotz, 1975, 1977). But unfortunately, as we pointed out in chapter One, they did not really test their definition by the means of using their individualized trust scale, but only measured the perceived trustworthiness of a specific target person.

Up to this point, it is clear that modern theories of human behavior (including trusting behavior), under the influence of the predominant cognitive philosophy in psychology, address more on subjective variables associated with the "inner processes", like the expectancy, the value

of outcome, the subjective utility of an objective, etc., than on variables like reinforcement, stimuli, etc. However, few of the previous researches on interpersonal trust deliberated to study the relationships of trust to these subjective variables.

One of the primary purposes of the present study, then, is to explore such relationships in terms of specific target persons and cultural settings. Seven cognitive process variables were measured in the present study, they are: (1) target-based interpersonal trust, measured by the likelihood of enacting a trusting behavior (LK), (2) expectancy of a positive outcome (EP--a subjective probability of occurrence of the positive outcome); (3) value of the positive outcome (PV--estimated importance of the positive outcome); (4) expectancy of a negative outcome (EN--a subjective probability of occurrence of the negative outcome); (5) value of the negative outcome (NV--estimated importance of the negative outcome); (6) perceived trustworthiness of a target person (TW); (7) one's control over the target person (CO--a subjective probability of retaliating against the target violating one's trust). All these variables or concepts appeared at least one time in those definitions of interpersonal trust introduced in chapter One, where we also interpreted them to some detail. We do not make further explanation on them except in the result and the discussion. Besides the above seven

variables, we included also the variable of culture as a major concern herewith---the measurement were separately carried out in three different cultural settings, the mainland China, Hong Kong, and the United States.

Because "undoubtedly there are some characteristics that human beings share universally, others that are shared in groups, and still others that are unique to each individual" (Paranjpe, 1988, p. 14). In recent decades, cross-cultural psychologists have been partly motivated to search for "panhuman laws", and partly motivated to find out differences among individuals from different cultures. They provide us a new perspective in psychological research that culture plays an important role in human individual experience and behavior. We follow this guideline in an attempt of not only locating what difference of interpersonal trust are cross-culturally (see the next chapter), but also finding out if there are differences in human cognitive process to determine trusting behavior across the three cultural settings (in this chapter).

The main questions to be answered in this chapter are as follow: (a) How can any of the six independent variables (EP, PV, EN, NV, TW, and CO), or their combinations be major or even unique factors in deciding the likelihood of one's trusting behavior to a specific target persons? (b) Compared to the other human behavior models, can we find out a general model to interpret one's trusting behavior?

(c) Will the "inner process" of trusting behavior be free of cultural effect, or be applicable to different cultural settings?

Part Two

Questionnaire, Subjects, and Procedure

Questionnaire

We constructed a trusting behavior questionnaire (TBMQ) which consists of five short scenarios. Each of the scenarios described a situation, in which there is a trusting behavior, a target person, and seven questions related to the seven variables. Subjects were asked to indicate how likely they would enact the trusting behavior towards the target person, and to make correspondent judgments on other six independent variables. The five trusting behaviors were selected from the ITBS scale to make them empirically equivalent, because in constructing the scale (see chapter Two) they were already proved to be unambiguous trusting behaviors. The five specific targets---father, elder sister, a specific classmate, a neighbor and a stranger---were also selected from the pool of 20 targets in the ITBS, in a hope that these targets could represent widely, because they had separate trust scores ranging from higher points to the lowest on the ITBS. A 6-point scale followed each of the seven questions in each of five situations (see the TBMQ questionnaire in Appendix B), so that each subject should make 35 responses.

Careful translations and back-translations were conducted to ensure the equivalence of Chinese version and English version of the questionnaire. The English version was sent to the United States to be answered by a group of American college students, while the Chinese versions were either in simplified Chinese characters distributed among a group of the mainland Chinese college students, or in complicated Chinese characters distributed among a group of Hong Kong college students. The only difference among these three versions was that the amount of money lent to one's elder sister was changed in accordance to the local monetary system in three cultural settings.

Subjects

All together we had 133 subjects, with 46 mainland Chinese, 37 Hong Kong Chinese, and 50 American college students. Hong Kong and American students were all juniors, getting credit from general psychology course in the Chinese University of Hong Kong, and the University of Illinois. The mainland Chinese students were from a senior class of the Capital Medical College, Beijing. Age range for these students was from 18 to 24, with a mean of 21.

Procedure

The design of the TBMQ allows us to perform regression analyses on its data in two ways. One is to regress the dependent variable (LTB) on other predictors in five situations one by one. Thus we can have information about

how one decides to enact a trusting behavior, and what factors (predictors) are mainly responsible to the decision when facing different target persons. Because we ran regressions on data from the five situations directly, we called this kind of data "situational data". But since this kind of data are confined to specific target persons, if what we may find from the analyses on the data are not consistent across these target persons, then we can rarely make generalization to other target people.

The other way is to transpose the "situational data" (see Appendix C for more detail) in order to have so-called "general data", in which there is only an "abstract target person", a "general trusting behavior" (try to imagine a situation in that the "abstract target person" would receive a general trusting behavior from subjects). The essence of such a transposition is that the "general data" tells us average information across all five target persons rather than individual information for each target, towards whom subjects would decide the likelihood to trust. Based on this average information we may generalize relationships resulting from regression analyses between the dependent and predicting variables to many other situations where target persons vary widely. Only in this sense may we call the relationships a general model of trusting behavior.

Part Three

Results of Regression Analyses

Results from the "Situational Data:

The likelihood of trusting behavior was regressed on the six predictors for each of the five situations, and resulted in five regression equations in Table 3.1.

Insert Table 3.1 about here

From the above table, it is interesting to note that (1) a large significant positive coefficient was always associated with EP, meaning that EP played a major role in predicting the likelihood of one's trusting behavior regardless of target person or trusting behavior; (2) NV had significant negative coefficients in the equations for the targets of "father" and "elder sister" (who are categorized as members of the "Intimate group in chapter Four), but not for other targets; (3) for three other targets (the "classmate" and "neighbor" are classified into the "Acquaintance" group, while the "stranger" into the "Stranger" group in chapter Four), PV emerged as one of the important factors, as it had a significant positive coefficient in two equations, although it appeared not to be as important as EP; (4) for the targets of the "neighbor" and the "stranger", TW became a very important factor, too. Its positive coefficients were nearly as large as those of EP in the two equations.

The above results were inconsistent for five target persons, however, from it we can at least theoretically hypothesize that cognitive processes emphasize different aspects of information when deciding to trust either intimate target persons or others else; while regardless of target person, the basic information---expectancy for positive outcome remains as a key component in the cognitive processes. In order to have more simpler pictures of these changing processes across target persons, we ran the regressions again, retaining the significant factors as predictors, and this time we also included the "cultural" factor in the analysis. Table 3.2 lists fifteen equations, each of which is only related to a specific target person and a specific culture, and Table 3.3 shows the R square change in regression of the hierarchical model.

Insert Tables 3.2 & 3.3 about here

From Table 3.2, we can see that the patterns of regression equation for trusting behaviors are quite similar across the three cultural settings, although there sometimes were coefficient differences of salient predictors between the two Chinese samples and American subjects, e.g., 0.07 and 0.45 associated with NV separately in H. K. Chinese and American equations [(when including culture variable, we used dummy code to represent it and American subject as a basic group, (Cohen, & Cohen, 1987)].

The pattern is: (1) NV had always negative coefficient, while EP, PV, and TW had always positive ones in the equations for all three cultural subjects; (2) As the mean trust scores decreased from the "father" to the "stranger" (3.98, 3.92, 3.36, 2.42, 0.81 for father, elder sister, classmate, neighbor, and stranger respectively), the salient predictor varied accordingly, except for EP. For the "Intimate" target (father and elder sister), NV plus EP were important; but for "Acquaintance" and "Stranger" target persons, NV was no longer a salient predictor. Instead, PV became salient for "Neighbor" and "Classmate", TW became important for "Neighbor" and "Stranger". This was proved by the R square changes in the hierarchical regression model in Table 3.3.

Cultural differences were found: (a) between Hong Kong Chinese and American students when the predication was made for "father" (NV associated B = 0.07, and 0.45 for Hong Kong Chinese, and American separately, $p < .05$); and (b) between the two samples of Chinese and American students when "neighbor" was the target person (PV associated B = 0.45, 0.34, and 0.03 for the mainland Chinese and Hong Kong Chinese, and for Americans separately, $p < .01$).

Results from the "General Data":

Regression analyses were conducted again on five groups of "general data" for Chinese, Hong Kong Chinese, and American subjects separately to look for a model for

this "general situation", so, there are 15 (5 * 3) regression equations (see Table 3.4). Same as before, we did not consider the culture difference at this stage of analysis.

Insert Table 3.4 about here

We can summarize these fifteen equations as follows: (1) For 13 out of 15 equations EP had a large significant regression coefficient; (2) In 8 out of 15 equations NV had the next larger significant regression coefficient. Besides NV always had a negative regression coefficient in these 15 equations; (3) None of the other four variables (PV, EN, CO, and TW) had significant coefficients in more than three of these 15 equations; moreover, they all were in different predictive directions for different regression equations; (4) Very similar patterns were found in three groups of subjects after we omitted PV, EN, CO, and TW which made only trivial contributions to the prediction of trusting behavior. That is, a large significant positive regression coefficient was related to EP, while a significant negative one was associated with NV.

It seems that we have a cognitive model of interpersonal trust expressed in the following general regression equation:

$$LTB = (w1)\ EP + (w2)\ NV + constant \qquad (3\text{-}1)$$

A hierarchical model analysis provides further

evidence to support the above general equation. If all six predictors were included in the regression analysis, the average variance accounted for is 0.606 for 15 equations; but if only EP and NV were included, the decrease of the average variance explained was relatively small, taking only 0.099 away, the average variance accounted for dropping from 0.606 to 0.507. From the average explained variance 0.507 we can estimate that the multiple correlation coefficient between LTB and EP, NV is 0.712. In the hierarchical model, the first entered variable is EP, next NV, followed by the other four variables. Their cumulative R square in these three steps are shown in the following table:

Insert Table 3.5 about here

But a question still remains, is the (3-1) model the best one to explain the relationships among criterion and predictor variables in such a "general situation"? Actually there are at least 7 possible models in theory, they are:

1. LTB---(TW);	(3a)
2. LTB---(SC);	(3b)
3. LTB---(PV);	(3c)
4. LTB---(NV);	(3d)
5. LTB---(EP*PV-EN*NV);	(3-2)
6. LTB---(EP*PV-EN*NV)+TW+SC	(3e)
7. LTB---EP+PV+EN+NV+TW+SC	(3f)

According to the subjective expected utility theory, the most possible model is (3-2) (rewrite it below):

LTB = (w1) EP * PV + (w2) EN * NV (3-2)

We tested these seven models for each of five "general data" groups. What we have found in statistical analyses are as follows:

1. None of the former four models (3a to 3d) in which only a single factor was entered as a predictor in regression equations was of significance, because these predictors alone could only account for a very small and nonsignificant variance in the likelihood of trusting behaviors. So we can conclude that these models, although simple, can not describe trusting behaviors one takes.

2. In the model (3e) and (3f) where all possible predictors were entered, the variance of the criterion variable could be explained by predictors range from 41.5% to 60.6% with an average of 51.5% (3e), and from 33.4% to 47.0% with an average of 38.1% (3f) across the five groups of data. Although the variance accounted for were quite high, when we looked at the regression equations, we found that contributions to this made by TW and SC were trivial and nonsignificant with no exception. After we dropped these two variables from the equation, only a very small amount of decrease in the variance accounted for were found. So that we come close to the model (3-2).

The model states that a behavior or behavioral intention will be best predicted upon two multiplied items, one is the product of EP and PV, the other is that of EN

and NV. If the (3-2) model works in the interpersonal trust, then the variance of the likelihood it could account for should be higher than that being accounted for by the model (3-1). But results of the regression analyses showed it was not the case (see the following hierarchical analysis based on the (3-2) model in Table 3.6):

Insert Table 3.6 about here

In this model the variances of the criterion variable accounted for are from 10% to 46% with an average of 40.5%. Compared to models (3a) to (3d), these proportions are relatively large. But we consistently found across all 5 group "general data" that when the EP*PV were entered first, they took nearly all the explained variance, so that the entrance of EN*NV brought about only a small increase in the proportion. In comparison with model (3e), we can see there was still a large gap (about 10%) between the proportions of explained variance of criterion variable.

But when we compared Table 3.5 with Table 3.6, it was clear that the model (3-1) is much superior than the model (3-2) in this research, because it could explain much more variance in the criterion variable, and in either regression steps it had a larger R square change, and also produced R square much more closer to the largest possible proportion of explained variance by all variables (3e, or 3f) than did the model (3-2). Thus, a general model of

interpersonal trusting behavior was established:

LTB = w1(expectancy of positive outcome) -
w2(value of negative outcome) + constant (1)

w1, w2---positive constants.

Of the two predictors, EP always played more important role than did NV in the prediction of likelihood of trusting behavior. It is important to remember that in the results from the "situational data" EP was also the only predictor that played unique salient role in all five equations.

We included dummy coded cultural variable (Cohen, & Cohen, 1987) into our regression analyses in order to test if the model can be generalized across cultures.

As we did in analyzing the "situational data", we entered the two predictor variables (EP, NV) first into the equation, then the two dummy variables of culture in the second step, interactions between EP and culture third, and interactions of NV and culture in the final step for each of five groups of reformed data. The results are: (1) In the five regressions, only one time did culture alone produce a significant increase of R square to the equation ($p<.01$); (2) Similarly, the interaction between EP and culture showed a significant effect only one time out of five regressions ($p < .01$); (3) None of interactions between NV and dummy variables was significant.

In sum, we may say that the trusting behavior model

(3-1) is consistent across cultures. The complete model equations of regression in Table 3.7 show the above results more directly.

Insert Table 3.7 about here

In the above five sets of regression equations, regression coefficients for EP and NV are not different for Hong Kong Chinese and the American, but only two out of five for EP are significant different for mainland Chinese and the American ($p < 0.05$). So this approach also confirmed that culture has minimal influence on this trusting behavior model. In other words, we can predict people's trusting behaviors cross-culturally based on a quite similar cognitive process.

Part Four

Discussion of the Results

A simple model that can be used to explain complex human behaviors is almost always one of the greatest purposes of social scientists, especially social psychologists. As mentioned above, psychologists have established a few models in an attempt to interpret trusting behaviors among human individuals.

In the present study, we have established a general cognitive model which explores the relationships between the likelihood of trusting behaviors and some subjective variables across cultures. It allows us to predict how one

decides on enacting a trusting behavior towards a target person in general on the one hand, and on the other hand, it probably reflects a simplification process of human cognition in trusting (or risky) situations. And we also analyzed the several different forms of this cognitive model in relation to different target persons. For "intimate" persons, the model remains unchanged; but for "acquaintance" and "strangers", it should be modified in the way that EP still remains, but in the place of NV, PV or TW or both of PV and TW become salient predictors according to who is the specific target person. So, we call these forms the modified forms of the general model of trusting behavior.

According to the model and its modified forms, we can predict one's trusting behaviors, if we know one's expectancy for the rewarding outcome in general, and one's evaluation of both and positive negative outcomes, and one's perceived trustworthiness in a given relation to a specific person. The higher one's expectancy for the positive outcomes (EP), the less the importance of negative outcome (NV), the greater the importance of positive outcomes (PV), and the higher the perceived trustworthiness (TW), the higher the likelihood one would engage in a trusting behaviors towards the target person.

All in all, one more question could be asked: does this interpersonal trust model make any sense? From the

mathematical point of view, a probability plus a value could be meaningless. But first, all variables we measured here were subjective ones, the expectancy (EP) is not an objective probability, the values (NV, PV, TW) are only psychological valences of importance, not objective values. So, on this subjective, or psychological basis, these variables could be additive, theoretically.

Secondly, there was an empirical research on gambling behavior--a kind of risk-taking behavior, like trusting behavior in some sense, which reported a quite similar equation. Slovic and Lichtenstein (1969), using what they referred to as an information processing approach, had a model of four unequally weighted components:

$$A(G) = C + w1\ Pw + w2\ U(+) + w3\ Pl + w4\ U(-)$$

A(G)-- the attractiveness of a gamble;
Pw --- the probability of winning the gamble;
U(+)-- the amount of positive utility to be gained;
Pl --- the probability of losing;
U(-)-- the amount of negative utility accompanying the loss.

Their results showed that, at least in the case of gambling, subjects did not assign equal weights to the four components (meaning that they are additive): Pw is weighted more heavily than Pl, and negative utility {U(-)} has a greater weight than positive utility {U(+)}. Their results, as well as the results in the present study, proved that the expectancy and the value are additive. Furthermore, quite interestingly, from different researches on different kinds of behavior, we got two very similar

models. Thus we can say with confidence that the model, although based on the "general data", is meaningful in the sense that it at least reflects the nature of trusting behaviors. Like gambling behaviors, trusting behaviors occur in risky situations where one expects with uncertainty that a rewards would follow, but at the same time one has to face a possible cost of large negative value. And we can also say that if such a "general situation" existed, then the general model would be a culture free, or "panhuman", model.

Of course, science does not only work with general concepts, but also with less abstract ones. From our regression analyses based on the "situational data", we came down into more concrete concept level, where the target person is specific one in real life. It should be no wonder if we found that there is difference between results of abstract level analyses and concrete level analyses, because in the former many attributes of concrete concepts and their limitations are intentionally ignored. When these attributes and limitations are restored in the concrete level, some modification on the general model would occur.

The modified forms of the model can be easily understood from our daily experiences: those target persons in whom we have higher trust are usually considered trustworthy by us, and those in whom we have less trust are

usually perceived as less trustworthy (but the reverse saying might be wrong as we indicated before); therefore, when we decide to enact a trusting behavior to a trustworthy target we do not necessarily take trustworthiness of the target into account again (to simplify our inner cognitive process); but when the target is less trustworthy, then we have to take the problem of trustworthiness seriously. So that for the highly trustworthy "Intimate" target persons, TW is not a salient factor, while it is a important one for other two less trustworthy "Acquaintance" and "Stranger" groups of target persons. The same can be said about predictors of NV and PV. Only for the "Intimate" target person (e.g., father and sister), can one undertake higher cost or risky trusting behaviors; while for other targets, risks then could not be as high as that for an intimate target. On the contrary, one must expect a relatively larger positive outcome from other people than one can from intimate persons, sometimes we can even unconditionally trust an intimate person---we expect nothing from him/her. Therefore, in the regression equations we found PV as a salient factor for "Acquaintances" and "Strangers", and NV as a salient predictor for "Intimates".

In sum, we trust other people in interpersonal relationships so as to have rewards or resources we need in return, while at the same time we have to take a risk

(either losing what we have or not getting what we want). As long as we can expect a high probability of rewards from target persons, we then intend to trust them; but our trusting intention will get weakened if we attach great values to possible costs; and if the targets are not intimate persons to us, then out trusting action intention will be strengthened by large value of rewards, and by a high level of trustworthiness of the targets.

These strongly suggest two important points: (a) We have already had trust in those intimates to the top level, decreasing our trust is the only possible direction to change our trust to intimates; therefore, to enact more trusting behaviors towards them would not significantly increase our trust in them, but if costs entailed from this trusting behavior are valued highly by us, then we may lower out trust towards them (so EP minus NV in the model). (b) On the contrary, we do not have high level of trust in people who are not regarded as intimates, so a decrease of our trust in them would be indifferent, only increasing trust in them is meaningful for us; therefore, if a trusting behavior is predicted to be able to bring us the resource we desire, then we enact the trusting behavior and increase our trust in these nonintimate people (so EP plus PV or/and TW in the model).

But why did PV and TW not appear as significant factors in the general model? Because in the results of

the "general data", we found that, among the six predictors, TW and PV always had significant positive correlations with EP (see Table 3.8), although they did not significantly and directly affect the likelihood of trusting behavior. This means that when one trusts a target person (in general sense), he must have a high expectation of getting rewards (EP) from the target, and naturally he values the expected rewards (PV), and at the same time he has also assumed to some degree the target to be a trustworthy person (TW). We may say that in the model the predictor EP had already reflected the indirect contributions of PV and TW in the prediction. So, this probably is the reason that TW and PV were not salient elements in the general model.

We mentioned the gambling model by Slovic and Lichtenstein (1969) a moment ago, which is congruent to our general model. But we should note that in their model there was no specific target; if we have deliberately to find out one target there, then the target was not a specific person, instead, it was an abstract target---luck. If the gamblers were not mad, they would have to admit that their targets are not the other gamblers, but their own luck (an objective probability of winning a gamble). In our general model, the target is also an abstract target---"abstract" person. So, it is not surprising that these two models are much alike. This comparison of targets becomes

another reason to believe that the general cognitive process model is meaningful.

Actually, modifications are only needed under the conditions where targets are nonintimate persons. Suppose that we bought in different target persons (not only strangers) in a game simulating experiment, such as the "Prisoner's dilemma" game, it might be possible for us to foresee that similar modified forms would be also derived for the gambling behavior model, as we did for the trusting behavior model in the present study. That is, the U(-) (equivalent to NV) might be more important for the "Intimate" targets, while U(+) (equivalent to PV) salient for other kinds of target persons.

As for the other predictor variables, we did not find correlations between EN, CO and EP, NV, PV, TW from the "general data" (see also Table 3.8). This may indicate:

1. EN had neither a direct effect on the likelihood of trusting behavior, nor indirect effects on it through the two basic predictors EP and NV in the model. That means, in general, when one trusts somebody, he usually does not pay attention to the probability (EN) but only the value (one of the salient traits) of the negative outcomes (NV). Theoretically speaking, the importance of EN as well as PV, could be "shrunk" to a trivial level in the simplification process of human cognition, at least in the case of a risky situation. These were demonstrated by the

results of the present study and those of Slovic and Lichtenstein (1969). As Blalock and Wilken wrote: "that the subjective probabilities of positive utility outcomes [EP] will be inflated and those for negative utility outcomes [EN] will be deflated [by subjects]..." (1979, p. 138).

2. As with EN, CO (control over the freedom of a target's action) was found not to have effect at all on the likelihood of trusting behavior, either. But the problem seems to be related to the definition of the concept of control. We conceptualized CO as a subjective probability of retaliation against the target's violation of one's trust. However, the concept of control in interpersonal trust situations may mean other things. For example, a formal contract using laws or regulations to restrict the target's behavior, an informal agreement or deal between one person and a target, a third person present between, and social norms concerning trusting behaviors in a society as introduced in chapter One, and the like. All of them can be means of control used to limit freedom of target's action. Therefore, in the future research much attention should be given to the concept in a broader sense.

Most of previous models originated from researches in a western cultural background, and few of them have gone through cross-cultural testing. Encouragingly, the new trusting behavior model proved itself to be cross-

culturally generalizable in the present study. For specific target persons, the modified forms may still be robust across cultures because at least for the five targets included in our analyses, we rarely found sign

Chapter Four

Cross-Cultural Comparisons of Interpersonal Trust

Part One

Introduction

We defined target-based interpersonal trust in chapter One, and developed the Interpersonal Trusting Behavior Scale (ITBS) to measure the concept, and proved the reliability and validity of the ITBS in chapter Two; we have also introduced the general model of interpersonal trusting behavior and its modified forms in chapter Three. In this chapter we will look at what patterns of interpersonal trust are within a particular culture, American or Chinese culture respectively and how these patterns of trust differ from each other cross-culturally. These comparisons will prove themselves as a meaningful preliminary study, not only because it is the first cross-cultural comparison in the field of interpersonal trust, but also provide us a basis for future cross-cultural researches on the topic.

As matter of fact, cross-cultural psychologists, who devote a great deal of effort to relating culture to individual's behavior, finding universally invariant behavior rules. They have made progresses in which several data-based theories have been formed. Among them are: (1) widely accepted and studied individualistic-collectivistic dimension theory of culture (see Gudykunst & Ting-Toomey,

1988, for a summary; Hui & Triandis, 1986; Triandis, 1988); and (2) Hofstede's four dimensional framework of culture (Hofstede, 1980; Hofstede & Bond, 1984).

Triandis (1986, 1988) argued that collectivistic cultures centralize social ingroups more than do individualistic cultures. In other words, people in the former cultures emphasize to comply with goals, needs and views of their own ingroup over that of outgroup, while in latter cultures, people tend to identify themselves to many of their ingroups in different situations, thus, the importance of any particular ingroup decreases. Triandis also demonstrated that Chinese culture is a collectivistic culture, American culture is an individualistic culture. He contended that since individualistic cultures have many ingroups, these ingroups exert less influence on individuals than they do in collectivistic cultures, in which there are few general ingroups. However, ingroup rank-order of importance differ among collectivistic cultures, some put family ahead of all other ingroups, as does Chinese culture (Hui & Triandis, 1986).

In Hofstede's framework, the four cultural dimensions are labeled: (1) Power distance; (2) Uncertainty avoidance; (3) Individualism vs. Collectivism; (4) Masculinity vs. Femininity. Hofstede defined the third dimension in a much similar way as Triandis did above. In sum, it is stated as "people are supposed to look after themselves and their

immediate family only" in individualistic cultures while in collectivistic cultures, "people belong to ingroups or collectivists which are supposed to look after them in exchange for loyalty" (Hofstede & Bond, 1986). In Hofstede's results (1980, 1983), three Chinese societies, Taiwan, Hong Kong and Singapore, ranked lower along the third individualism dimension, while U.S.A. ranked the highest in the same dimension, demonstrating quantitatively again that Chinese culture is collectivistic culture and American culture is individualistic culture.

Then what influence can a culture exert on individual behavior, more specifically, on one's interpersonal trusting behavior that is the major topic of the present study? Unfortunately, there is little obvious evidence that can be used to delineate even roughly what it should be.

However, there are indirect findings that may be relevant to the problems in question. In their research, Hui and Triandis (1986) pointed out: "It is rare for a person to have equally high concern to intimate, significant others as for distant, important other. More likely than not, concern decreases with decreasing familiarity of the other" (1986, p. 5). But people living in collectivistic cultures "exaggerate" the difference, they draw sharper distinctions between members of ingroups and members of outgroups than do people living in

individualistic cultures. This findings can be represented in the following hypothetical trust graph.

Insert Figure 4.1 about here

From Benjamin's human behavior model, we knew that trust and concern in others project themselves mainly onto the associative dimension (see chapter Two). Therefore we could probably expect a similar pattern, like that in Figure 4.1, would appear in interpersonal trust towards different target persons from very significant others (or ingroup members) to unimportant others (or outgroup members) across cultures. Given this, it is, then, a proper place to derive the first hypothesis in this chapter. It states:

People in collectivistic cultures trust a target person of their own ingroup more than do people in individualistic cultures; and people in the former cultures trust a target person of a outgroup less than do people in the latter cultures.

As for differences of interpersonal trust among Chinese societies themselves, there is no direct evidence available in the psychological literature. The researches that could be found are investigations done by sociologists (Ho & Kochen, 1987) and a psychiatrist (Ko, 1975). Ho and Kochen used a self-made questionnaire to measure the trust attitude (much like Rotter's generalized trust) among Hong

Kong Chinese and the Mainland Chinese, and concluded from the comparison that people in the Mainland China tend to trust others more than people do in Hong Kong. The reasons they proposed were that due to the high level of industrialization in Hong Kong there is much pressure on individual persons and more competitions among them than in the mainland, and Hong Kong people are mainly concerned with their own economic interests.

Ko (1957) in Taiwan conducted a study comparing various psychiatric traits between people living in two Taiwanese cities---one is large and industrialized and the other is relatively more traditional in its life style. He found in such comparisons that the large city dwellers were easier to feel depressed, hostile, and distrustful than were dwellers in the small city. He argued that it was so just because people in the large, industrialized city had to deal with a larger range of others in their life, while people in the small, and traditional city had a relatively stable social circles in which most of others are family members, relatives and friends, so that they can enjoy very close and relaxed relations with their acquaintances.

Given that there are differences in interpersonal trust among Chinese in societies at different levels of industrialization, even though they all are characterized by the same collectivistic culture, we derive the second hypothesis in this chapter. It states:

In general, people in a highly industrialized society trust others less than do people in a less developed society, no matter what kinds of culture they come from.

A theoretical framework using Chinese indigenous concepts is relevant here. K. K. Hwang (1977, 1987) depicted a general model in an attempt to illustrate the process of social interactions in modern Chinese society. Based on exchange theories, he speculated that there are three basic interpersonal relationships in a society in terms of different exchange rules. The first one is so-called the expressive tie, connecting one's family members, close friends, and other congenial groups, in which various exchanges are conducted according to the principle of need. The second one is the instrumental tie, in which one interacts with other (mainly strangers) in accordance with the equity principle. Between these two groups of people, there are many others, such as, relatives, neighbors, classmates, colleagues, etc. This group of people is connected by the so-called mixed tie. Hwang thought that "in Chinese societies, a mixed tie is a relationship in which an individual seeks to influence other people by means of renqing and mianzi [face]" (p. 952).

Hwang's work is a theoretical framework about interpersonal relationship as a whole, while our present work is a empirical research target-specific interpersonal trust which is one of these interpersonal relationships. So

we have reasons to believe that trusting relationships between two person in exchange situations may emerge a similar pattern as described by Hwang, to have several types in terms of likelihood of one's enacting a trusting behavior towards different target persons. If trusting relationships would have several types, too, then we can infer that target persons towards whom trusting behavior is enacted would also be in several categories. Given this, we derive the third hypothesis. It states:

In two-person exchange situations, target persons go into different categories in terms of the likelihood of actor's enacting a trusting behavior towards them.

Part Two

Subjects and Procedure

Subjects

We had 205 subjects, aged from 18 to 23 with a mean of 20.4, from three cultural settings. All of them were university students getting their credit from an introductory psychology course, in Beijing University, the Mainland China, the Chinese University of Hong Kong, and the Illinois University, U.S.A., separately. Except for the American subjects, we measured trust two times in a period of six months among the Mainland and Hong Kong Chinese subjects. The subject distribution by these three cultures and two times is shown in the following table.

In order to make a comparison between the trust scores

at the first time and at the second time, the two samples of the Mainland China and Hong Kong were drawn from the same population, that is, the students who were attending an introductory psychology course in Beijing University and Chinese University of Hong Kong separately.

Because there are two types of questionnaire (Q1, Q2 referred to chapter Two), we list herewith the subject distribution in these two types of questionnaires across the three cultures. It might be interested to know the distribution of different sex subjects as well, so that in Table 4.1 we give the sex distribution as well.

Insert Table 4.1 about here

Procedure

We used the new target-specific interpersonal trust scale (ITBS) in the study of this chapter. The ITBS has three versions, one in English, one in simplified Chinese characters, the third in complicated Chinese characters, to suit the writing habit of these subjects. Translations and back-translations between Chinese version and English one were conducted (see chapter Two).

Subjects answered the ITBS in group. The exactly same instruction was given to all subjects on the front page of the questionnaire. Half of both male and female subjects were given the first type of questionnaire (Q1), and the rest half were given the second type (Q2), to have a

relatively same number of males and females to answer the two types of questionnaire.

Part Three

Results

1. 10*2*2*2 four ways ANOVA (10 target persons, 2 sub-cultures, 2 sexes, and 2 periods):

To test if there was a time effect on interpersonal trust, we first analyzed the two samples from China and Hong Kong. As shown in Tables 4.2 and 4.3, there were no time or sex main effects on target- specific interpersonal trust. Culture and Target Person (TP--a within subject factor), however, showed their main effects and their interaction effect.

Insert Tables 4.2 & 4.3 about here

Because there was no time effect for either type of questionnaire, we then treated all subjects from mainland China and Hong Kong as two whole samples, and made no distinction between the first and second time group of subjects in the following analyses.

2. 10*3*2 three ways ANOVA (10 target persons, 3 cultures, and 2 sexes):

The analyses of variance on all subjects in three cultures are shown in Tables 4.4 and Table 4.5.

Insert Tables 4.4 & 4.5 about here

We can see from the above two tables that the result patterns are quite similar to those we have seen before in Table 4.2 and Table 4.3. Sex had no main effect in either type of questionnaire; Culture and TP had significant effects on trust (the general trends across 10 target persons are graphed separately in Figures 4.2 and 4.3).

Insert Figures 4.2 & 4.3 about here

Only difference from previous ones was that the interaction effect between Sex and TP was significant for the Second ('Q2') type questionnaire this time.

3. Cluster Analysis:

People categorize others according to the different principles or rules (Hwang, 1987) when exchanging with them, so that the cluster analysis was conducted here to see how subjects in the research place unconsciously different target persons in relation to their trust in them. The mean trust scores are listed in the following Table 4.6.

Insert Table 4.6 about here

We can see from the table and above two figures that some of target persons get much closer trust scores than the others. The results of cluster analysis for each of two types of the questionnaire are shown below:

Insert Table 4.7 about here

The cluster results showed that in both groups of target persons, there are three clusters in terms of ITBS mean score. The first cluster includes all family members and best friend and dated boy/girl friend. The second cluster includes target persons such as stranger, peddler and taxi driver. The third cluster consists of people who are acquainted with subjects. Therefore, it is reasonable to label these three clusters respectively as: (a) Intimate group; (2) Stranger group; (3) Acquaintance group.

It is proper to recall that in Hwang's work (1978, 1987), he specified theoretically a quite similar three ties of connecting people in exchange interpersonal situations. We will discuss this similarity later in the discussion section.

We fouind in the clustering resutls that for the first type of questionnaire (Q1), the categories of target persons are the same across all three culture samples, but for the second type of questionnaire, the assignment of TPs into clusters were a little bit different cross-culturally. The difference occurred when American students put the "relative" in the Intimate group, while the other two Chinese samples prefer the "relative" in the Acquaintance group; Hong Kong students cluster the "boss" as member of the Stranger group, but the other two student samples place it in the Acquaintance group. We dropped off these two TPs of "relative" and "boss" from the following analyses.

The following tables show what the pattern of trust mean scores for each of three clusters of target persons across the three cultural samples.

Because the results of cluster analyses have shown that three quite similar clusters of target persons emerged from both types of the questionnaires across cultures, and that they all can be labeled as "Intimate", "Acquaintance" and "Stranger", then we reasonably combined the two questionnaires in the following analyses of variance on Cluster across Culture. And besides, the type of the questionnaire had nothing to do with the main concern of the research (for it was formed just for a convenience and for releasing response burden of subjects, see chapter Two), so we will not include it in the following analyses.

4. 3*3*2 three way ANOVA (three clusters of TPs, three culture settings, and 2 sexes):

Table 4.8 shows various mean trust scores for each cluster of target persons across three cultures, and Table 4.9 lists the ANOVA results.

Insert Tables 4.8 & 4.9 about here

The results of 3 ways ANOVA showed that subjects from the three cultural settings had highly significant differences in their trust; trust scores given to the three clusters of target persons were significantly distinguished; the interaction between TP Cluster and

Culture was also significant at 0.05 level. Compared to these, other factors' main effects and their interactions were not significantly different at the 0.05 level. The mean scores of these three group are given in Table 4.10, and are represented in Figure 4.4.

Insert Table 4.10 about here

Insert Figure 4.4 about here
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5. Simple Effect and Contrast Analyses on the clustered target persons across three cultures:

For the significant interaction between Culture and TP Cluster ($p < .05$), we carried out the following simple effect analyses and multiple contrast analyses to locate the difference among cultures for each of three clusters of TP's.

Insert Tables 4.11 & 4.12 about here

From the above tables, we can see: (a) for the "Intimates", there was no simple cultural effect at all; for the "Acquaintances", there was a significant difference among the three culture groups ($p < .01$); and for the "Strangers", there was also a significant difference cross-culturally ($p < .05$); no sex differences at three target levels were significant, and neither were the interactions between Culture and Sex. (b) For the significant cultural

differences of interpersonal trust towards the "Acquaintances" and the "Strangers", they were mainly coming from the differences between the Mainland Chinese as one group and Hong Kong Chinese and the American as another group (see Table 4.12). As Table 4.10 shows, the Mainland Chinese tend to trust their "acquaintances" as well as "strangers" more than both Hong Kong and American people do. This pattern of interpersonal trust across cultures is clearly represented in Figure 4.4.

Part Four

Discussion of the Results

In this chapter, we derived three hypotheses: Hypothesis One (which states that it is culture that has most important role in interpersonal trust, in line with the relevant research in cross-cultural psychology), Hypothesis Two (which states that it is the level of development in a society that plays a key part in trust at the micro-level), and Hypothesis Three (which states that target persons in trusting situations go into different categories in terms of the likelihood of actor's engaging in a trusting behavior).

The third hypothesis was confirmed in the way that all target persons could be clustered into three categories by trust scores of subjects, and these three clusters were statistically different from each other in their received trust mean scores for each of the three cultures. It is

interesting to note that these categories are quite similar with the three ties of people defined in Hwang's (1987) theory of power game (see the introduction section of this chapter). As we said at the very beginning, trust has an important position in developing, maintaining, and promoting interpersonal relationships of cooperation. In other words, if we could understand interpersonal trust, then we would come closer to understanding interpersonal relationships. Therefore the empirical findings here not only provide support to Hwang's theory on human relationships but also prove that trust is a key to having a clearer picture of human relationships.

From this similarity, we can also see the simplifying process of human cognition in interpersonal trust situations. The process not only keeps the most salient and ignores unimportant information about target persons (see chapter Three) but also deals with these targets by category rather than by single person, to decide in general whether or not to engage in a trusting behavior towards target persons.

The results also confirmed the second hypothesis. Subjects from societies of the United States and Hong Kong (both of which are considered to be highly industrialized societies) did not differ in their trust towards various TP groups (intimates, acquaintances, and strangers) from each other. But the subjects from the Mainland China, a

developing society, demonstrated significantly higher trust in their acquaintances and strangers than did either of above two samples of subjects.

On this point, we speculate that it is the development of industrialization in a society rather than the characteristic (collectivism or individualism) of a culture that has strong influences on interpersonal trust towards specific target persons. People in highly developed and industrialized societies have lower trust in nonintimate persons than people in less modernized societies do, although people in both societies have no difference in their trust towards the intimates. Given the importance of the "acquaintance" group (general friends, classmates, colleagues, neighbors, doctors, etc., or similarly the mixed-tie persons) in modern life, it must be admitted that the above findings is of much significance.

In a series of study on cross-cultural values, Bond (1989, for a summary; Chinese Culture Connection, 1987) created a scale called the Chinese Values Survey consisting of 40 value items from Chinese indigenous conceptions, from which a two bi-polar factor structure emerged at the individual level analysis. They are: (1) Social integration vs. Cultural inwardness, and (2) Reputation vs. Social morality. On the first factor of these two, positively loaded the values like Tolerance of others, Harmony with others, Trustworthiness, etc. We may infer

that scores of this Factor would be parallel to trust scores of ITBS. It was on this Factor that the average individual scores of American and Hong Kong people were closer ($\underline{m}$=2.84 and 2.53, separately) than either of them was close to that of the Mainland Chinese ($\underline{m}$=1.98). More interesting to note that those countries whose individual scores were higher than that of Americans are nearly all the industrialized countries, like Japan, West Germany, etc., while those whose scores were lower than that of the Mainland Chinese are mainly the undeveloped countries like India, Pakistan, and Bangladesh. Bond's results provide an indirect support to our findings.

In chapter Three we set up a general cognitive process model of trusting behaviors based on the "general data", and specified its modified forms for the different target persons model when dealing with the "situational data". Accordingly, it is reasonable for us to infer that EP, as well as NV, PV and TW, might account for the modernization difference of interpersonal trust towards "acquaintances" and "strangers" (recall that the model modifications were necessary only when TPs are "acquaintances" and "strangers").

In a highly developed society, one finds it easier to be satisfied by being able to access many kinds of resources, form material products, through money, information, service, to affection. Therefore the value of

these available resources (PV) are discounted and become of less importance to them. Because people can easily have these resources from society, they do not necessarily have high expectancy (EP) for their acquaintances to give what they desire. So, discounted PV and unnecessary high EP would naturally lead to lower likelihood of engaging in trusting behaviors in risky exchange situations with these persons.

However, in a relatively undeveloped society, suppose one has a similar range of desires, but resources are not that easy to get to satisfy everyone. So, it is necessary for people to have a particular TP circle or network with whose people one must keep constant exchange relationships to get these highlighted resources (PV). In this network, acquaintances take a large proportion, because family members usually can not satisfy so wide a range of desires. People tend to increase (or inflate) their expectancy (EP) for these target persons. And constant contact makes them perceive each other in the network (or ingroup) as more trustworthy (TW). So, highlighted PV, inflated EP and highly perceived TW would lead to higher likelihood of enacting trusting behaviors. Therefore, it is no wonder that the Mainland Chinese trust the acquaintance TPs more than do American and Hong Kong Chinese.

Unfortunately, we did not get quantitative evidence here about the above inference. In an analysis of variance

on the "situational data" (see chapter Three), we found no significant differences between the Mainland Chinese as one group and Hong Kong Chinese and American as another group in EP, TW and PV for specific TP clusters (Intimates, Acquaintances, or Strangers). However we should not be discouraged because at least we can think about the inference as a hypothesis to be tested in the future research.

As for the first hypothesis, although the results did not confirm it directly, but it did not in any sense run against it, either. Because, when we further grouped the "Intimates" and the "Acquaintances" into the "frequent contact group" (ingroup, or network group) and left the "Stranger" group remaining as the "occasional contact group" (or outgroup), we found that the subjects from the Mainland China (a collectivist culture) had shown higher trust towards the first "frequent contact group" of Tps than did American subjects ($F(1, 127) = 5.96$, $p < .05$). This at least partly coincided with the first hypothesis--that the Mainland Chinese subjects treated the "frequent contact group" as their ingroup and expressed more trust towards it, while American subjects expressed their trust towards the same group not to the same high level as the Mainland Chinese did. So that the importance of ingroup had effects to some extent on the interpersonal trust. Higher trust towards ingroup people is expected from people

living in the collectivistic cultures, and relatively lower levels of trust is expected from those who are living in the individualistic cultures.

However, there appeared to be a problem relating to how to define an ingroup in different culture. In Triandis's framework (1988), there are more ingroups for people in individualistic cultures than for people in collectivistic cultures. A specific target person whom is regarded as outgroup member in the latter culture may be considered as one of ingroup members. For example, in the present study, American subjects placed "relative" in the "Intimate" cluster, while Chinese put it in the "Acquaintance" cluster. But in all analyses, we assumed a same pattern of categorization (of "Intimate", "Acquaintance", and "Stranger") among target persons between subjects of these two kinds of cultures. So, in future study of interpersonal trust, it is important to have equivalent "ingroup" across cultures, too.

In the present study, we did not find that sex main effect on subject's trust towards targets by a 3 way-ANOVA. We can conclude, therefore, that men and women do not differ from each other in their target-based interpersonal trust, in general.

In addition to considerations on the categorization of target persons, the influence of culture and industrialization, and the sex effect, it is also

worthwhile to discuss the possible reasons that interpersonal trust was not affected by the time periods, or more accurately speaking, by a sudden event in China. The first time we measured target-based interpersonal trust among Beijing and Hong Kong college students was before the event of "June 4th". During process of the event, it was these college students both in Beijing and in Hong Kong who were the most active and most influenced group of people. So, it is natural to ask if they would generally change their trust due to the impact of the event. We carried out the second measurement at an about half year interval with the same college population.

The results showed that there were time effects on target-based trust among these college students. This is probably due to the fact that what we measured by the concrete trusting behavior items of the ITBS is target-based interpersonal trust at the micro level of society. As introduced in chapter One, the micro-level trust occurs between or among individuals, and it deals with problems of interpersonal relationships, while the macro-level trust deals with problems of intergroup relationships. It is determined to a very large extent by one's expectancy for the positive outcome, and other factors as well, from actions of a specific target person. As long as EP and NV, PV, TW do not vary in relation to the target person, one would maintain his trust at a stable level in the target

person. The event of "June 4th" was unlikely to change sharply one's EP and NV in relation to a specific target person at least to these 20 persons included in the present study. As the target-specific interpersonal trust is stable across times, so are the scores for the ITBS scale.

Chapter Five

General Conclusions

Living in the world of limited resources, human beings must rely on each other and cooperate with each other. Although there are always people who believe in competition for the interests of themselves, in principle everyone knows that competition must be fair in the sense that it would not destroy others, and oneself in the end. So, the prerequisite for the continuing exist of human beings in the world is cooperation.

But how does one live in such a world in which cooperation is presumed but full of competition? One of the answer is to trust. Trust makes us believe others have the intention to cooperate; trust makes us avoid using other unfair measures to compete; trust then enables us to get resources we desire. Therefore trust is of such importance in human life that we could say, without it, cooperation among human beings would be less possible, if not impossible.

This research focuses on the interpersonal trust which occurs in the situation of two persons--one actor, one target. Although trust also occurs among more than two persons at the micro level, and among groups of people at the macro level of human society as well, it will be helpful to understand trust as whole if we know more about trust in two-person situations.

In searching for the previous studies in the literature, we found that trust has never been a main topic of social psychology, and that the existing researches have not followed a systematic way. Many have been done in light of Rotter's definition of generalized expectancy, in which trust was treated there as a personality trait. Others have studied trust in the field of human communication, and associated it with the reciprocal self-disclosure in interpersonal relationships. The rest have taken the concept of trust for granted, without paying much attention to the concept itself.

In such a background, the present research has to be an exploratory one; and, we think, it can make contributions at least to the following special aspects:

1. We concentrated on the target-person-based trust. At micro level of human society, we face various individual persons, none of them is same to us. Our trust therefore must be different towards different target individuals. The results showed that there are indeed quite significant differences in target specific interpersonal trust. In general, people have higher trust in those who are close, salient, and important to them than in those who are less so. In terms of interpersonal trust, target persons can be categorized into three basic cluster---groups of Intimate, Acquaintance, and Stranger.

2. We treated trust as something occurring in an

interpersonal relationships of exchanging resources with uncertainty, so that we defined trust as "one's behavioral intention towards a specific target person; the behavior, if enacted in a situation in which one has less control over the target's freedom of action, will lead to greater costs if one's expectancy for beneficial outcomes resulting from the behavior is violated by the target person". Therefore, we measured trust---behavioral intention though the measurement of the likelihood of one's enacting a trusting behavior. The results showed that the likelihood is determined mainly by one's expectancy (a subjective probability) for the positive outcomes in the exchange situation. But for different target persons, either subjective value of negative outcomes (for intimate persons), or subjective value of positive outcome and perceived trustworthiness of a target person (for acquaintances and strangers) may also play important roles in predicting the likelihood of trusting behavior.

3. We contrasted the target-based trust and its behavior model cross-culturally. It is believed that the research is the first one of this kind in the literature. The findings here suggests that trust is a basic, and universal psychological construct, because the cognitive process model and its modified forms of trusting behavior appeared to be generalizable to different cultures. No matter what cultural background and what level of

industrialization is being considered, people of the society tend to trust others based on a similar cognitive process. Moreover, we have also found that the target-specific trust towards one's ingroup members and outgroup members is not influenced much by the cultural collectivism and individualism, but by the level of industrialization of a society. The results do not confirm general theories that people in collectivistic cultures behave differently from those in individualistic cultures, in respect with the importance of distinction between one's ingroup and outgroup.

There are two important aspects of the study that should be pursued in future:

1. The general model and its modified forms will be focused on to answer the following questions: will they be robust if more target persons and more trusting behaviors included? If yes, then will a theory of interpersonal trust be constructed based on the model? (For example, what is theoretical meaning down behind expectancy which is so consistently salient a factor in predicting trusting behavior? Is there really a top level of trust, when approaching to it, subjective value of costs would becomes great, then trust has to be either at a standstill or to decrease? ......).

2. More cultural samples and samples of people from societies of different level of industrialization will be

employed to test our inferences made on the empirical findings in the present study, that is, how and why does modernization of a society have stronger influence on interpersonal trust? What is the role of cultural collectivism and individualism in one's trust? And will the cognitive process model of trusting behavior be applied to people in all cultures (For example, the distinction of cultural collectivism and individualism might have an important role in trusting target persons of Acquaintance and Stranger groups when negative outcomes are valued differently). Surely, it is quite interesting to know if we can apply what we have found here to trust occurring at macro level, such as work units in organization, political groups in social power system, etc.

It is our hope that the present study may help people understand, and then promote cooperation among human individuals, to serve the common wealth of human beings.

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Table 2.1

Averaged item-total correlation

item\region	China	H.K.	U.S.A.
1	.41	.55	.37
2	.49	.51	.56
3	.43	.52	.50
4	.55	.53	.61
5	.61	.53	.70
7	.44	.49	.55
9	.53	.59	.63
10	.50	.65	.61
11	.33	.38	.34
12	.54	.55	.47
13	.60	.58	.37
14	.55	.61	.63
15	.44	.58	.61
16	.57	.59	.56
17	.48	.50	.36
18	.58	.60	.56
19	.58	.53	.52
20	.49	.49	.43

Note. Items No. 6 and No. 8 were dropped off from the following analyses.

Table 2.2

Cronbach Alphas of the ITBS for 20 targets (18 items)

target (Q1)	China (43)	H.K. (37)	U.S.A.(25)
father	.92	.87	.95
elder sister	.82	.87	.78
younger brother	.88	.87	.87
best friend	.88	.84	.75
averaged friend	.87	.94	.94
spouse	.87	.84	.34
colleague	.87	.94	.78
neighbor	.86	.94	.84
doctor	.89	.91	.87
taxi driver	.86	.94	.84
target (Q2)	China (37)	H.K. (39)	U.S.A.(24)
mother	.76	.75	.90
elder brother	.82	.80	.98
younger sister	.84	.87	.94
boy/girl friend	.86	.89	.89
relative	.89	.93	.91
classmate	.90	.91	.93
teacher	.89	.88	.91
boss	.86	.91	.91
peddler	.90	.87	.78
stranger	.86	.91	.91
Mean	.87	.88	.85

Table 2.3

Alpha Coefficients For the Self-Disclosure Scale

TP	Alpha (n=19)	TP	Alpha (n=22)
Father	.92	Mother	.72
elder sister	.91	elder brother	.84
Young brother	.85	Young sister	.81
Best Friend	.68	Boy/girl	.66
Friend	.84	Relative	.88
Spouse	.63	classmate	.85
Colleague	.78	Teacher	.75
Neighbor	.89	Boss	.89
Doctor	.86	Peddler	.85
Taxi Driver	.91	Stranger	.78

Table 2.4

Total Average Reliability Coefficients Of Self-Disclosure and Dominance Scales For 20 Target Persons

scale	average alpha
Self-disclosure	.82
Dominance	.78

Table 2.5

Validity Index Of ITBS (Pearson Correlation Coefficients)

TP	r1	r2
Mother	-.25	.29
Elder brother	-.14	.53 **
Young sister	-.28	.52 *
Boy/Girl friend	-.19	.55 **
Relative	.02	.47 *
Classmate	.14	.63 **
Teacher	.39	.75 **
Boss	-.03	.78 **
Peddler	-.24	.65 **
Stranger	.03	.57 **
Father	-.003	.71 **
Elder sister	.29	.89 **
Young brother	.24	.79 **
Best Friend	-.05	.50 *
Friend	-.12	.62 **
Spouse	.20	.64 **
Colleague	.01	.72 **
Neighbor	-.12	.56 **
Doctor	-.06	.72 **
Taxi Driver	-.24	.85 **
Average	-.02	.64

Note. r1--the correlations between the ITBS and the DS;

r2--the correlations between the ITBS and the SDS.

Table 3.1

Regression Equations of Complete Model

(Regression on the "situational data")

1. LTB3 = .17 * EP -.44 ** NV -.02PV +.11TW +1.96

2. LTB1 = .59 ** EP -.17 ** NV -.04PV -.02EN +.03SC +2.17

3. LTB4 = .58 ** EP -.11NV +.16PV +.07EN +.09SC -.06TW +0.63

4. LTB2 = .50**EP +.11NV -.34**PV +.13EN -.11SC +.46**TW -1.65

5. LTB5 = .38**EP -.09NV +.18 * PV -.11EN +.15SC +.33**TW -.14

Note. * --- significance at .05;
** -- significance at .01;
1, 2, 3, 4, 5 --- in order of target persons: father, elder sister, classmate, neighbor, and stranger;
LTB--likelihood of trusting behavior;
EP---expectancy of a positive outcome;
PV---value of the positive outcome;
EN---expectancy of a negative outcome;
NV---value of the negative outcome;
TW---perceived trustworthiness of target person;
CO---control over the target.

Table 3.2

General Regression Equations Across Cultures

(Regression on the "situational data")

The first situation---father:	
LTB = 0.12EP - 0.22NV + 1.69	For the mainland Chinese;
LTB = 0.18EP + 0.07 * NV + 2.17	For H.K. Chinese;
LTB = 0.18EP - 0.45NV + 2.25	For the American.
The second situation---elder sister:	
LTB = 0.82EP - 0.11NV + 0.82	For the mainland Chinese;
LTB = 0.88EP - 0.17NV + 2.17	For H.K. Chinese;
LTB = 0.43EP - 0.23NV + 2.85	For the American.
The third situation---classmate:	
LTB = 0.34EP - 0.25PV + 1.39	For the mainland Chinese;
LTB = 0.81EP - 0.15PV + 0.77	For H.K. Chinese;
LTB = 0.67EP - 0.20PV + 0.43	For the American.
The fourth situation---neighbor:	
LTB = 0.39EP + 0.45 * PV + 0.18TW - 0.53	For the mainland;
LTB = 0.39EP + 0.34 * PV + 0.53TW - 1.55	For H.K. Chinese;
LTB = 0.60EP + 0.03PV + 0.48TW + 0.02	For the American.
The fifth situation---stranger:	
LTB = 0.33EP + 0.38TW + 0.23	For the mainland Chinese;
LTB = 0.53EP + 0.84TW - 1.11	For H.K. Chinese;
LTB = 0.49EP + 0.40TW - 0.83	For the American.

Note. * --- the EP regression coefficients for two Chinese samples were different from that for the American ($p < .05$) in the 3rd and 5th group data.

Table 3.3

Hierarchical Analysis Results On "Situational Data"

(Average R Sq Cha of 5 Regression Equations For each TP)

TP	step	predictor	cum R sq (%)
father	1	EP	8.2 ***
	2	NV	15.9 **
Total R Square			24.1 ***
elder sister	1	EP	34.0 ***
	2	NV	5.3 **
Total R Square			39.3 ***
classmate	1	EP	35.6 ***
	2	PV	1.3
Total R Square			36.9 ***
Neighbor	1	EP	40.9 ***
	2	PV	9.7 ***
	3	TW	8.3 ***
Total R Square			58.8 ***
stranger	1	EP	28.4 ***
	2	TW	6.0 ***
Total R Square			34.3 ***

Note. *** -- R square change significance at .001;
** --- R square change significance at .01;
* --- R square change significance at .05.

Table 3.4

Regression Equations of Complete Model

(Regression on the "general data")

For the mainland Chinese subjects:

1. LTB1 = .62 ** EP -.27NV -.22PV -.01EN +.14SC +.28TW +1.31
2. LTB2 = .75 ** EP -.06NV -.16PV -.02EN -.08SC -.01TW +1.16
3. LTB3 = .42 * EP -.43 * NV +.17PV +.29EN +.01SC +.21TW +.79
4. LTB4 = .42*EP -.52**NV +.08PV +.06EN +.21SC -.05TW +1.86
5. LTB5 = .28EP -.22NV +.62 * PV +.09EN +.03SC +.21TW -.54

For the Hong Kong Chinese subjects:

1. LTB1 = .66**EP -.52**NV +.38PV -.12EN -.09SC +.28TW +4.18
2. LTB2 = .83 ** EP -.25NV -.09PV +.20EN +.10SC +.08TW +.11
3. LTB3 = .84 ** EP -.20NV +.22PV +.24EN +.01SC +.36TW +.23
4. LTB4 = .82**EP -.48**NV +.09PV +.04EN +.04SC +.09TW +.50
5. LTB5 =-.20EP -.89**NV -.90**PV -.22EN +.11SC +.40TW +1.82

For the American subjects:

1. LTB1 = .91 ** EP -.02NV +.14PV -.07EN -.16SC +.02TW +.20
2. LTB2 = .63**EP -.46**NV +.35*PV +.20EN -.20SC -.19TW +1.49
3. LTB3 = .96 ** EP -.24NV -.02PV +.03EN -.03SC +.14TW +.08
4. LTB4 = .73**EP -.26*NV +.07PV +.16EN -.23*SC +.03TW +1.32
5. LTB5 = .79 ** EP -.28NV +.31PV +.14EN +.02SC -.08TW +.22

Note. * --- significance at .05;
** -- significance at .01;
1, 2, 3, 4, 5 --- the first, second, third, forth, and fifth group of "general data";

Table 3.5

Hierarchical Analysis Results On "General Data"

(Average R Square For 15 Regression Equations)

step	variable	cum R sq (%)
1	EP	47.9 a
2	NV	6.8 b
3	rest others	5.9
Total R Square		60.6

Note. a---all R square changes for EP * PV in the first step are significant at 0.01;
b---3 out of 15 R square changes for EN * NV in the second step are significant at 0.05.

Table 3.6

Hierarchical Analysis Results On "General Data"

(Average R Square For 15 Regression Equations)

step	variable	cum R sq (%)
1	EP * PV	40.5 a
2	EN * NV	4.0 b
Total R Square		44.5

Note. a---all R square changes for EP * PV in the first step are significant at 0.01;
b---3 out of 15 R square changes for EN * NV in the second step are significant at 0.05.

Table 3.7

General Regression Equations Across Cultures

(Regression on the "general data")

The first group:	
LTB = 0.67EP - 0.29NV + 1.50	For the mainland Chinese;
LTB = 0.83EP - 0.46NV + 1.16	For H.K. Chinese;
LTB = 0.95EP - 0.05NV + 0.25	For the American.
The second group:	
LTB = 0.73EP - 0.09NV + 0.59	For the mainland Chinese;
LTB = 0.65EP - 0.20NV + 0.51	For H.K. Chinese;
LTB = 0.73EP - 0.33NV + 1.32	For the American.
The third group:	
LTB = 0.54 * EP - 0.31NV + 1.76	For mainland Chinese;
LTB = 0.93EP - 0.20NV + 0.23	For H.K. Chinese;
LTB = 1.01EP - 0.27NV + 0.41	For the American.
The forth group:	
LTB = 0.45EP - 0.48NV + 2.24	For the mainland Chinese;
LTB = 0.88EP - 0.47NV + 1.17	For H.K. Chinese;
LTB = 0.75EP - 0.29NV + 1.35	For the American.
The fifth group:	
LTB = 0.36 * EP + 1.35	For the mainland Chinese;
LTB = 0.50EP - 0.44NV + 1.96	For H.K. Chinese;
LTB = 0.79EP - 0.23NV + 1.08	For the American.

Note. * --- the EP regression coefficients for the Mainland Chinese were different from that for the American ($p<.05$) in the 3rd and 5th group data.

Table 3.8

Correlation Coefficient Matrix Between EP, NV And PV, TW, EN, CO (Regrouped Data One)

Data Group		PV	TW	EN	CO
One	EP	0.32 ***	0.33 ***	-0.03	0.07
	NV	0.08	-0.10	0.06	-0.01
Two	EP	0.19 *	0.41 ***	-0.09	0.01
	NV	0.09	-0.19	0.14	0.16
Three	EP	0.29 ***	0.33 ***	-0.05	-0.10
	NV	0.01	-0.07	0.11	0.12
Four	EP	0.38 ***	0.30 ***	0.02	0.18 *
	NV	0.01	-0.19 *	0.03	0.02
Five	EP	0.19 *	0.38 ***	-0.26	-0.06
	NV	0.31 ***	-0.08	-0.06	0.26

Note. *** --significant at the level of 0.001;

** ---significant at the level of 0.01;

* ----significant at the level of 0.05.

Table 4.1

Subject Distribution By Two Times Across Three Cultures

	Culture	China	H.K.	U.S.A.	Total
Time	First Period	49	33		82
	Second Period	31	43	49	123
Sex	Male	41	30	25	96
	Female	39	46	24	109
Type	Q2	37	39	24	100
	Q1	43	37	25	105
Total		80	76	49	205

Table 4.2

ANOVA Results of ITBS (Q1)

From Two Samples (China and H.K.)

Source	df	F	p
Sex	1, 71	0.21	.627
Culture	1, 71	3.17	.079
Time	1, 71	1.68	.199
Sex*Culture	1, 71	1.01	.319
Sex*Time	1, 71	3.10	.083
Culture*Time	1, 71	0.43	.316
TP	9, 639	352.93	.000 ***
Sex*TP	9, 639	0.59	.804
Culture*TP	9, 639	3.82	.000 ***
Time*TP	9, 639	0.79	.623
Sex*Culture*TP	9, 639	0.93	.501
Sex*Time*TP	9, 639	0.32	.970
Culture*Time*TP	9, 639	1.42	.176

Note: Number of cases is 79;

Type of questionnaire is Q1.

Table 4.3

ANOVA Results Of ITBS (Q2)

From Two Samples (China and H.K.)

Source	df	F	p
Sex	1, 66	0.03	.875
Culture	1, 66	13.00	.001 **
Time	1, 66	0.31	.580
Sex*Culture	1, 66	0.41	.525
Sex*Time	1, 66	0.69	.408
Culture*Time	1, 66	0.16	.692
TP	9, 549	665.56	.000 ***
Sex*TP	9, 549	1.74	.076
Culture*TP	9, 549	5.45	.000 ***
Time*TP	9, 549	1.08	.374
Sex*Culture*TP	9, 549	1.21	.288
Sex*Time*TP	9, 549	1.20	.292
Culture*Time*TP	9,549	0.74	.675

Note. Number of cases is 74;

Type of questionnaire is Q2.

Table 4.4

ANOVA Results Of ITBS (Q1) Across Three Cultures

Source	df	F	p
Sex	1, 93	0.09	.763
Culture	1, 93	2.58	.082
Sex*Culture	1, 93	0.78	.463
TP	9, 837	138.09	.000 ***
Sex*TP	9, 837	0.19	.650
Region*TP	18, 837	2.71	.000 ***
Sex*Region*TP	18, 837	0.69	.827

Note. Number of cases is 99;

Type of questionnaire is Q1.

Table 4.5

ANOVA Results Of ITBS (Q2) Across Three Cultures

Source	df	F	p
Sex	1, 87	2.61	.110
Culture	1, 87	7.53	.001 **
Sex*Culture	1, 87	1.97	.145
TP	9, 783	653.29	.000 ***
Sex*TP	9, 783	3.18	.001 **
Culture*TP	18, 783	8.37	.000 ***
Sex*Culture*TP	18, 783	1.61	.051

Note. Number of cases is 93;

Type of questionnaire is Q2.

Table 4.6

Trust Mean Scores For Three Cultures

TP \Culture	China		H.K.		U.S.A.	
Q1 n	43		37		25	
	M	Sd	M	Sd	M	Sd
father	3.98	0.77	3.96	0.75	4.14	0.74
elder sister	3.92	0.55	4.08	0.48	4.14	0.41
younger brother	3.95	0.65	3.89	0.55	4.01	0.55
best friend	4.29	0.59	4.17	0.46	4.39	0.36
friend	2.90	0.62	2.68	0.77	2.99	0.80
spouse	4.40	0.55	4.49	0.39	4.75	0.16
colleague	2.77	0.63	2.32	0.76	2.55	0.46
neighbor	2.42	0.66	1.77	0.80	2.27	0.55
doctor	1.98	0.87	1.76	0.81	1.75	0.72
taxi driver	0.96	0.84	0.77	0.63	0.66	0.38
Q2 n	37		39		24	
mother	4.39	0.37	4.32	0.33	4.37	0.61
elder brother	4.44	0.40	4.17	0.39	3.74	1.36
younger sister	4.03	0.54	3.89	0.49	3.36	1.01
boy/girl	4.29	0.46	4.17	0.50	4.39	0.69
relative	3.24	0.63	2.58	0.70	3.68	0.75
classmate	3.36	0.64	3.16	0.65	2.58	0.90
teacher	3.27	0.66	2.63	0.68	2.53	0.88
boss	2.43	0.68	1.68	0.70	2.37	0.91
peddler	0.74	0.65	0.67	0.48	0.49	0.42
stranger	0.81	0.55	0.49	0.41	0.54	0.40

Table 4.7

Specific Target Persons Classified In Three Groups (Combining Q1 and Q2)

Intimate	Group Acquaintance	Stranger
father	common friend	peddler
mother	classmate	taxi driver
old brother	colleague	stranger
old sister	neighbor	
young brother	teacher	
young sister	doctor	
spouse		
boy/girl friend		
best friend		

Note. The target of "relative" and "boss" were deleted from the following analysis.

Table 4.8

Mean Trust Scores For Each Of TP Groups

Across Three Cultures

Type\Culture\Group		Intimate		Acquaintance		Stranger	
		M	Sd	M	Sd	M	Sd
Q1	China (n=43)	4.11	0.49	2.49	0.60	0.96	0.84
	H.K. (n=37)	4.11	0.35	2.06	0.69	0.77	0.63
	U.S.A. (n=25)	4.29	0.58	2.44	0.55	0.65	0.40
Q2	China (n=37)	4.29	0.37	3.31	0.54	0.78	0.54
	H.K. (n=39)	4.13	0.29	2.91	0.57	0.61	0.40
	U.S.A. (n=24)	3.83	0.69	2.58	0.82	0.52	0.39

Table 4.9

Result of ANOVA on Combined TP Groups Across Three Cultures

source	F	df	p
Culture	8.20	2, 192	.000 ***
Sex	0.35	1, 192	.557
Cluster	2351.02	2, 384	.000 ***
Cult*Cluster	3.70	4, 384	.014
Sex*Cluster	2.25	2, 384	.073

Note. Number of cases is 204;
The nonsignificant interactions were dropped off from the table.

Table 4.10

Mean Trust Scores For TP Groups Across Cultures

(Questionnaires Combined)

Culture\Group	Intimate		Acquaintance		Stranger	
	M	Sd	M	Sd	M	Sd
China (n=80)	4.14	0.46	2.88	0.70	0.87	0.71
H.K. (n=76)	4.12	0.32	2.49	0.75	0.69	0.52
U.S.A. (n=45)	4.07	0.58	2.51	0.65	0.59	0.38

Table 4.11

Simple Effect Of Culture On Three TP Groups Across Three Cultures and Two Sexes

Cluster	Factor	F	df	p	
Intimate	Culture	1.37	2, 198	.256	
	Sex	1.37	1, 198	.243	
Acquaintance	Culture	6.73	2, 198	.002	**
	Sex	0.13	1, 198	.722	
Stranger	Culture	4.05	2, 198	.019	*
	Sex	2.40	1, 198	.123	

Note. ** -- significant at .01;
* --- significant at .05.

Table 4.12

Contrasts Among Trust Mean Scores Across Cultures For Each of Three Clusters Of Target Persons

Cluster		China	Hong Kong
Intimate	Hong Kong	1.09	
	U.S.A.	2.59	0.44
Acquaintance	Hong Kong	10.21 **	
	U.S.A.	8.92 **	0.02
Stranger	Hong Kong	3.88 *	
	U.S.A.	7.26 **	0.83

Note. df--- (1, 198).

**---significant at the level of 0.01.

*---significant at the level of 0.05.

Figure Caption

Figure 4.1: Hypothetical Relations Between Trust And TP Groups In Collectivistic And Individualistic Cultures.

Figure 4.2: Realistic Relations Between Trust And Target Persons Across Cultures (Q1).

A--spouse; B--best friend; C--father; D--elder brother; E--younger sister; F--friend; G--Colleague; H--neighbor; I--doctor; J--taxi driver.

Figure 4.3: Realistic Relations Between Trust And Target Persons Across Cultures (Q2).

A--mother; B--elder sister; C--boy/girl friend; D--younger brother; E--classmate; F--teacher; G--relative; H--boss; I--stranger; J--peddler.

Figure 4.4: Trust Scores For Each Of Three Groups Of Target Persons Across Cultures.

Interpersonal Trusting Behavior Scale (ITBS) (Q1)

Instruction

In our daily life we behave differently toward different persons. On the following pages there are 20 sentences which describe 20 different behaviors, and also there are 10 specific persons. When you interact with these persons you could possibly undertake each of those 20 behaviors. Your task is to indicate the likelihood that you would engage in each of these 20 behaviors with each of these 10 persons using a 6-point scale:

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

For example, imagine that you are with your mother or with a stranger. How likely is it that you would disclose your inner feelings to each of them? In general, the possibility you would do so with your mother is much higher than that you would do so with the stranger. In this case, you may choose "4" as an answer for your mother and "0" for the stranger.

Your chosen number should be written on the answer sheet which is in the matrix form as explained below:

Each target person takes one column, while each behavior takes one row, then each cell of the matrix defines a special combination of a person and a behavior. Your answer should be put into these cells. Please note:

1. Your answer should reflect your real life. In

case that person or behavior is not suitable for you (e.g., "spouse" for the unmarried), you can use your imagination to give your answer.

2. Write the scale number into the correct cell to be sure that the number you write down is the likelihood of a special behavior associated with a specific person.

THANK YOU FOR YOUR TIME!

20 Special Behaviors

1. You would tell the person your personal secrets.
2. You believe that all the person tells you is true.
3. You appreciate his/her good intention, when the person criticizes you strongly.
4. You would leave your house keys to the person when you are going away for a week and ask him/her to look after your house.
5. You would allow the person to use your expensive belongings, such as your camera, rare books, new clothes, etc.
6. You would lend the person money over US$60, it he/she needs it.
7. You would especially like to get sympathy and comfort from the person when you feel unhappy.
8. You would choose the person to deliver an important and urgent personal letter to another person for you.
9. You would permit the person to look at you diary which records your private life.

10. You would like the person to join you to share with you in the chance to make money.
11. You would like to ask for advice and suggestions form the person when you have problems in relation with other person.
12. You would let the person temporarily keep a large amount of cash for you.
13. You would leave your children in the person's care when you had to do so.
14. You believe that the person will keep his/her promises.
15. You would ask for financial support from the person without to much hesitation if you had difficulty in your economic affairs.
16. You could let the person do some of your important work without supervising him/her.
17. You never suspect his/her motives when the person offers you any kind of help voluntarily.
18. You would ask the person to watch your luggage for a while when you are in an unfamiliar environment.

THANK YOU FOR YOUR TIME!

10 SPECIFIC PERSONS (For Q1):

A. FATHER B. ELDER BROTHER C. YOUNGER SISTER

D. BEST FRIEND E. AN AVERAGE FRIEND

F. SPOUSE G. COLLEAGUE H. NEIGHBOR

I. DOCTOR J. TAXI DRIVER

10 SPECIFIC PERSONS (For Q2):

A. MOTHER B. ELDER SISTER C. YOUNGER BROTHER

D. OPPOSITE SEX BOY/GIRL FRIEND E. RELATIVE

F. CLASSMATE G. TEACHER H. BOSS

I. PEDDLER J. STRANGER

Dominance Scale for Discriminant Validity

1. Do you tend to dominate the conversation?
2. Would you prefer to be a worker rather than a manager?
3. Do other people tend to seek your opinion on things?
4. Rather than argue, do you sometimes let other people push you around a bit?
5. Are you easily swayed by other people's opinions?
6. Do you tend to boss people around?
7. Would you dislike standing out from the crowd
8. Does the idea of being a leader rather attract you?
9. Would you rather take orders than give them?
10. In an argument or discussion, will you argue for your own point of view even though you are in the minority?
11. Do you hate giving speeches or talks in public(For example: Being asked to say a few words at a wedding)?
12. If you are told to take charge of some situation, does this make you feel uncomfortable?

Self-Disclosure Scale For Convergent Validity

How likely would you like to talk the bellowing topics to the person?

1. My opinions about the current affairs.
2. My future ambition.
3. My weakness that I would like to overcome.
4. My ability of learning at school.
5. My idea about religion.
6. My best favored movies or TV programs

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

Trusting Behavior Model Questionnaire (TBMQ)

Instruction

In the following questionnaire there are several supposed situations which you may or may not have experienced, if not, then you need to use your imagination to answer each of the questions, and try to make your answers as realistic as possible.

Each question is followed by a 6-point scale. For example, in answering the question of " Do you think that person A is trustworthy?", each point of the scale stands for:

"0"---not trustworthy at all
"1"---slightly trustworthy
"2"---moderately trustworthy
"3"---trustworthy
"4"---very trustworthy
"5"---completely trustworthy

Suppose that you think person A is very trustworthy, then you should circle the number "4". To give another example, when answering " How likely would it be that your behavior would lead to some outcomes? ", the 6-point in the scale stand for:

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

Again, suppose that you think that the likelihood is very small, then you should circle the number "2".

Please read carefully each situations and each question before choosing the scale number. Your answer would be of much help to our research on human behavior.

Thank you very much for your cooperation!!!

Situation One

Suppose that your elder sister is leading a difficult life after she got married. When she gave birth of her third child, she asked to borrow US$500 from you.

a. How likely would you be to lend the money to her?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

b. How possible is it that she would not return the money to you?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

c. If she would not give the money back to you, how great a loss is it to you?

0	1	2	3	4	5
none at all	nearly none	less loss	a loss	great loss	much great loss

d. How likely is it that lending money to your elder sister and thereby having her lead a better life would make you feel at ease and happy?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

e. How important is it for you that your elder sister is leading an easier life, and that you feel happy about it?

0	1	2	3	4	5
not at all	unimportant	less important	important	much important	extremely important

f. Do you think there are alternative ways to get your money back if your elder sister would not return it to you as agreed (For example, asking your father's help to intervene; or phoning her husband, etc.)?

0	1	2	3	4	5
no way	nearly no way	a few ways	some ways	many ways	extremely many ways

g. Do you think your elder sister is a trustworthy person?

0	1	2	3	4	5
not at all	slightly trustworthy	a little trustworthy	trustworthy	very trustworthy	completely trustworthy

Situations Two:

Suppose that you are leaving home for about one week on a tour. Before leaving, you are worried about the security of your house.

a. How likely is it that you would give the keys of your house to your next-door neighbor, and ask him/her to look after your house?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

b. How likely is it that you would be relieved of worry about your house during your tour because he/she was taking care of your house?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

c. How important is it for you that when traveling, you are relieved of worry about the security of your house?

0	1	2	3	4	5
not at all	slightly important	moderately important	important	very important	extremely important

d. How likely might it be that your neighbor abuses your trust by mis-using your property in some way?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

e. How serious would it be for you if your property was mis-used in some way?

0	1	2	3	4	5
not at all	not serious	moderately serious	serious	very serious	extremely serious

f. If your house were really broken into by some one when you left your house keys with your neighbor, how responsible could your neighbor be held for the break-in?

0	1	2	3	4	5
not at all	slightly responsible	moderately responsible	responsible	very responsible	completely responsible

g. Do you think that this next-door neighbor of yours is a trustworthy person?

0	1	2	3	4	5
not at all	slightly trustworthy	a little trustworthy	trustworthy	very trustworthy	completely trustworthy

Situation Three

Suppose that you are accustomed to keep a diary in which there are many personal thoughts and feelings.

a. If your father wanted to see it, how likely would you be to let him look through your diary?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

b. How likely do you think it would be that he would talk about your diary's contents with other persons?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

c. How important is it for you to keep your diary's contents from people other than your father?

0	1	2	3	4	5
not at all	unimportant	less important	important	much important	extremely important

d. How likely would it be that your relationship with your father would deepen as a result of his knowing you better through reading your diary?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

e. How important is it for you to have an deepened relationship with your father?

0	1	2	3	4	5
not at all	unimportant	less important	important	much important	extremely important

f. If you found that your father did disclose your diary's contents to others, how likely is it that you could retaliate against him for doing so?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

g. Do you think that your father is a trustworthy person?

0	1	2	3	4	5
not at all	slightly trustworthy	a little trustworthy	trustworthy	very trustworthy	completely trustworthy

Situation Four:

Suppose that you did not do well in an important examination with the result that your future alternatives were now limited and you felt very sad and ashamed.

a. How likely is it that you would tell all your feelings about this situation to one of your classmates, with whom you worked on a seminar project this term?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

b. How likely is it that you could get consolation and encouragement from him/her, and that would make you feel better?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

c. How valuable is it for you to have the classmate's concern and solicitude when you did not feel good?

0	1	2	3	4	5
not at all	slightly valuable	moderately valuable	valuable	very valuable	extremely valuable

d. How likely is it that when you talk about your sad feelings to this classmate, he/she would seem not to appreciate your feelings and reject your ideas?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

e. How serious would it be for you that you could not get your classmate's understanding but instead you were rejected?

0	1	2	3	4	5
not at all	slightly serious	moderately serious	serious	very serious	extremely serious

f. How likely is it that you would think that you could retaliate against him/her later if he/she failed to understand you and rejected you in this way?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

g. Do you think that your classmate whom you worked with in the same seminar is a trustworthy person?

0	1	2	3	4	5
not at all	slightly trustworthy	a little trustworthy	trustworthy	very trustworthy	completely trustworthy

Situation Five:

Suppose that you were in a railway station of an unfamiliar city with a large pile of packages, which you could hardly carry yourself. At this moment, you saw a man whom you just met on the train, standing nearby.

a. How likely is it that you would ask him to help watch your packages for a few minutes, while you made a phone call?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

b. How likely would you think that he would watch your packages until you came back from making your phone call?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

c. How important is it for you to have someone help you when you are in such need in an unfamiliar environment?

0	1	2	3	4	5
not at all	unimportant	less important	important	much important	extremely important

d. How likely do you think it might be that the man would steal some of your packages and go away when you make your phone-call?

0	1	2	3	4	5
(0%)	(0-20%)	(20-40%)	(40-60%)	(60-80%)	(80-100%)

e. How serious would such a case be for you?

0	1	2	3	4	5
not at all	slightly serious	moderately serious	serious	very serious	extremely serious

f. Are there any effective ways in such a situation to retaliate against such unpleasant acts by the stranger (e.g., by reporting the theft to the police, etc.)?

0	1	2	3	4	5
not at all	nearly none	less ways	some ways	much ways	extremely many ways

g. Do you think that this stranger whom you met on the train is trustworthy?

0	1	2	3	4	5
not at all	slightly trustworthy	a little trustworthy	trustworthy	very trustworthy	completely trustworthy

Appendix C

The Process of transposition of the "situational data" into the "general data"

The aim of transposition of the "situational data" into the "general data" is to set up a "general situation" through mixing up information about all five target persons and five trusting behaviors, then based on the data from this "general situation", to establish a psychological model which can be used to predict and interpret trusting behavior in general. In this "general situation" there should be "only" one dependent variable, six predictor variables, an "abstract" trusting behavior, and an "abstract target person". To achieve the aim, we transposed the "situational data". The process of transposition is as shown by the following two matrix:

Situational Data Matrix

Subject	Five Situations				
	S1	S2	S3	S4	S5
s1	a11	a12	a13	a14	a15
s2	a21	a22	a23	a24	a25
s3	a31	a32	a33	a34	a35
s4	a41	a42	a43	a44	a45
s5	a51	a52	a53	a54	a55
s6	a61	a62	a63	a64	a65
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

General Data Matrix

Subject	Five Groups				
	G1	G2	G3	G4	G5
s1	a11	a12	a13	a14	a15
s2	a22	a23	a24	a25	a21
s3	a33	a34	a35	a31	a32
s4	a44	a45	a41	a42	a43
s5	a55	a51	a52	a53	a54
s6	a61	a62	a63	a64	a65
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

In this way, each group of these "general data" contains not only the information about one specific target person and one special trusting behavior, but about all five target persons and all five trusting behaviors. It seemed that in such a pure (or noise-free) situation, there were average target persons, who would receive general trusting behaviors. So, it allowed us to infer all information about relationships among variables in just one regression equation, and to establish a generalized model, which will be able explain any trusting behavior enacted towards any specific target person.

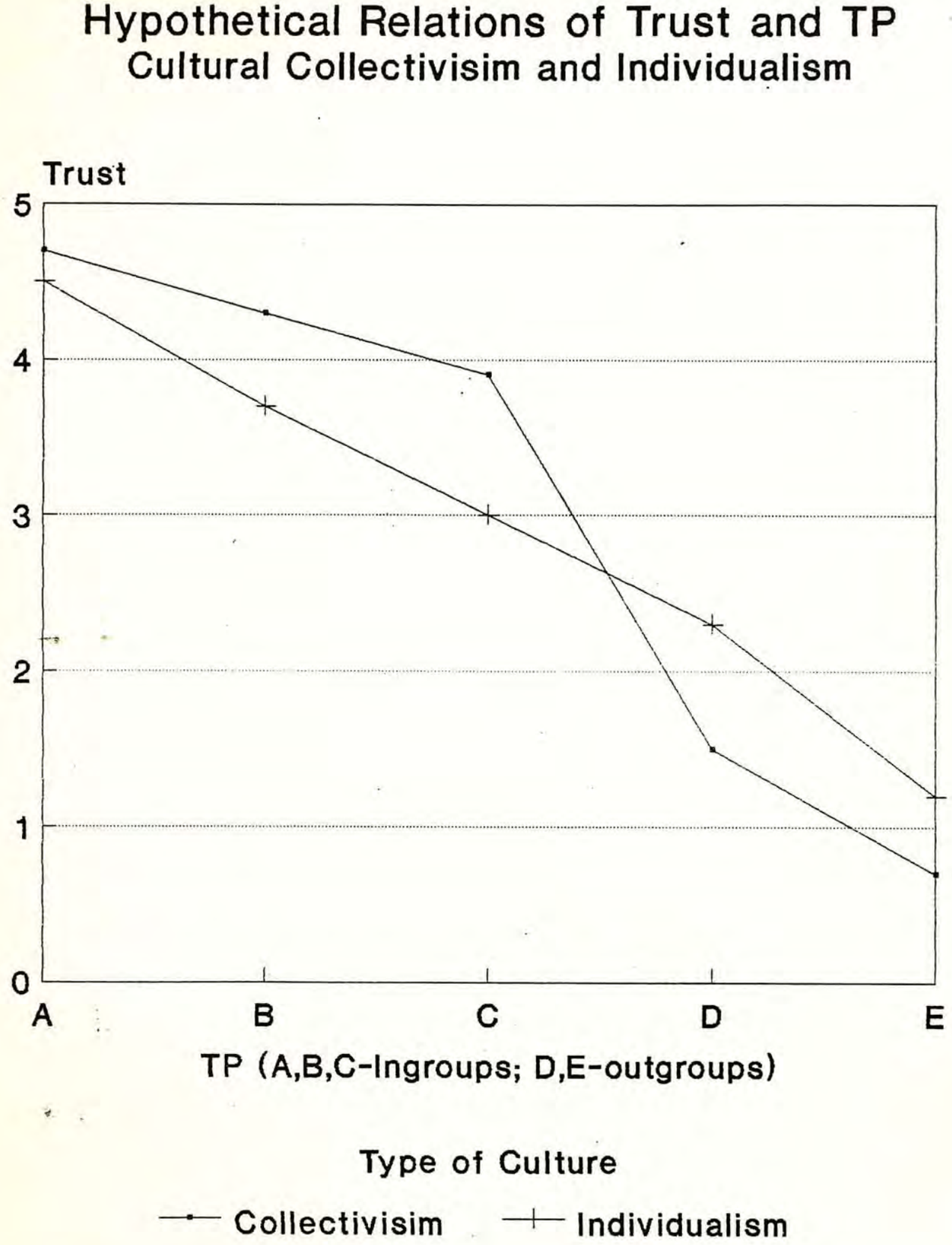
Hypothetical Relations of Trust and TP
Cultural Collectivisim and Individualism
Trust
5
4
3
2
1
0
A
B
C
D
E
TP (A,B,C-Ingroups; D,E-outgroups)
Type of Culture
Collectivisim
Individualism

Figure 4.1

Relations Between Trust and TP
Across Three Culture (Q1)

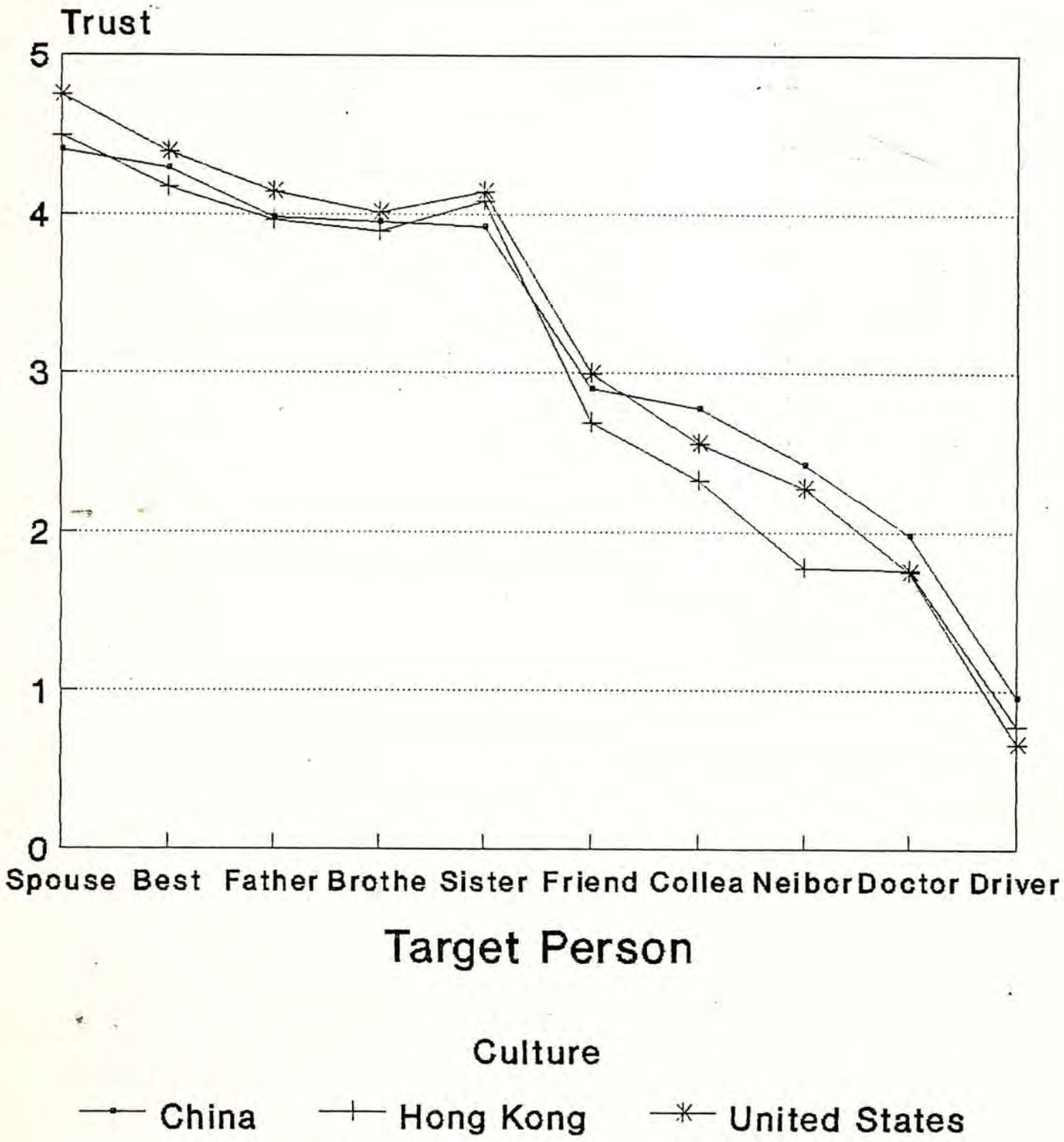

Figure 4.2

Relations Between Trust and TP
Across Three Cultures (Q2)

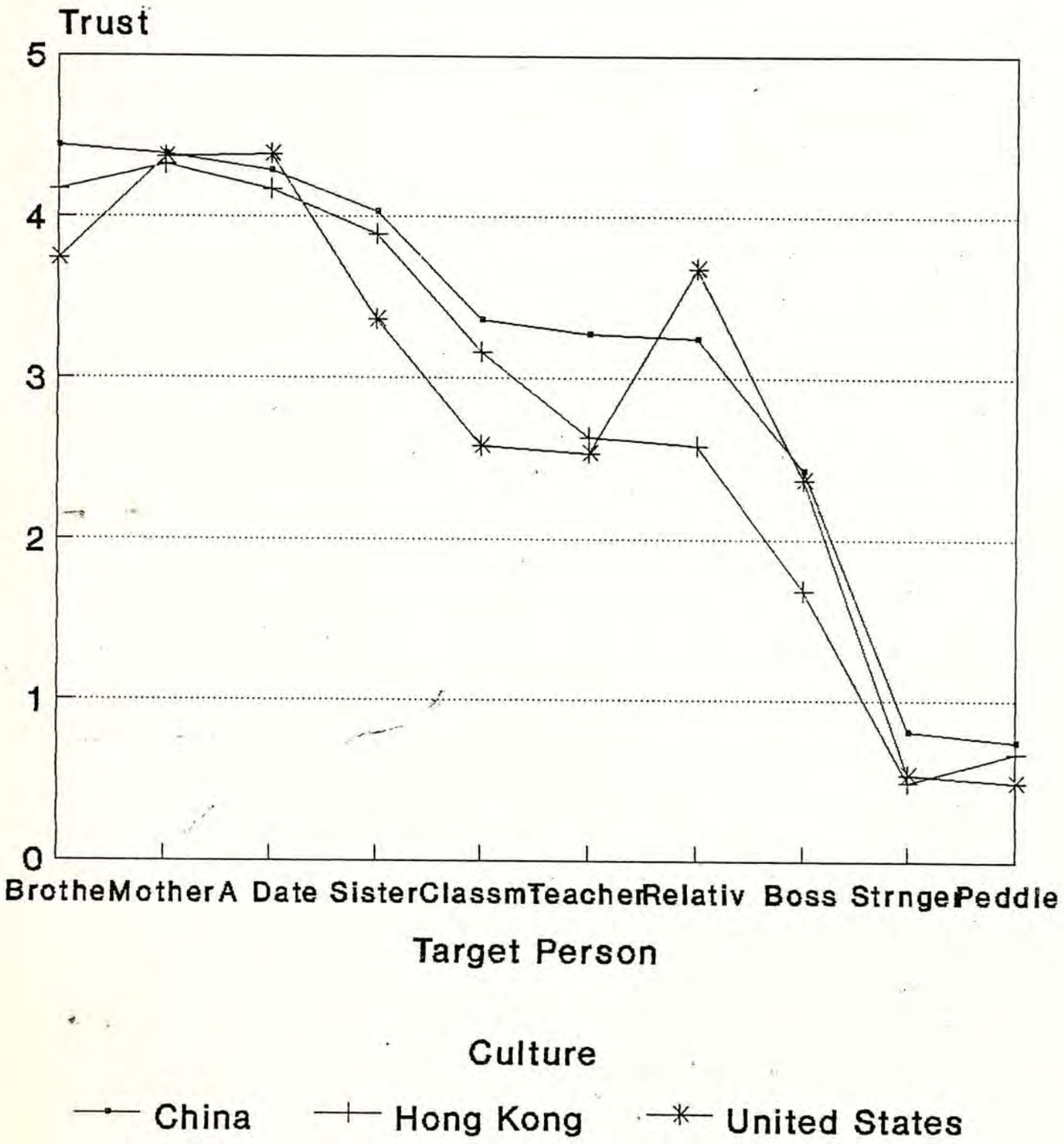

Figure 4.3

Relations Between Trust and Clusters
Across Three Culture (Combined Q1 and Q)

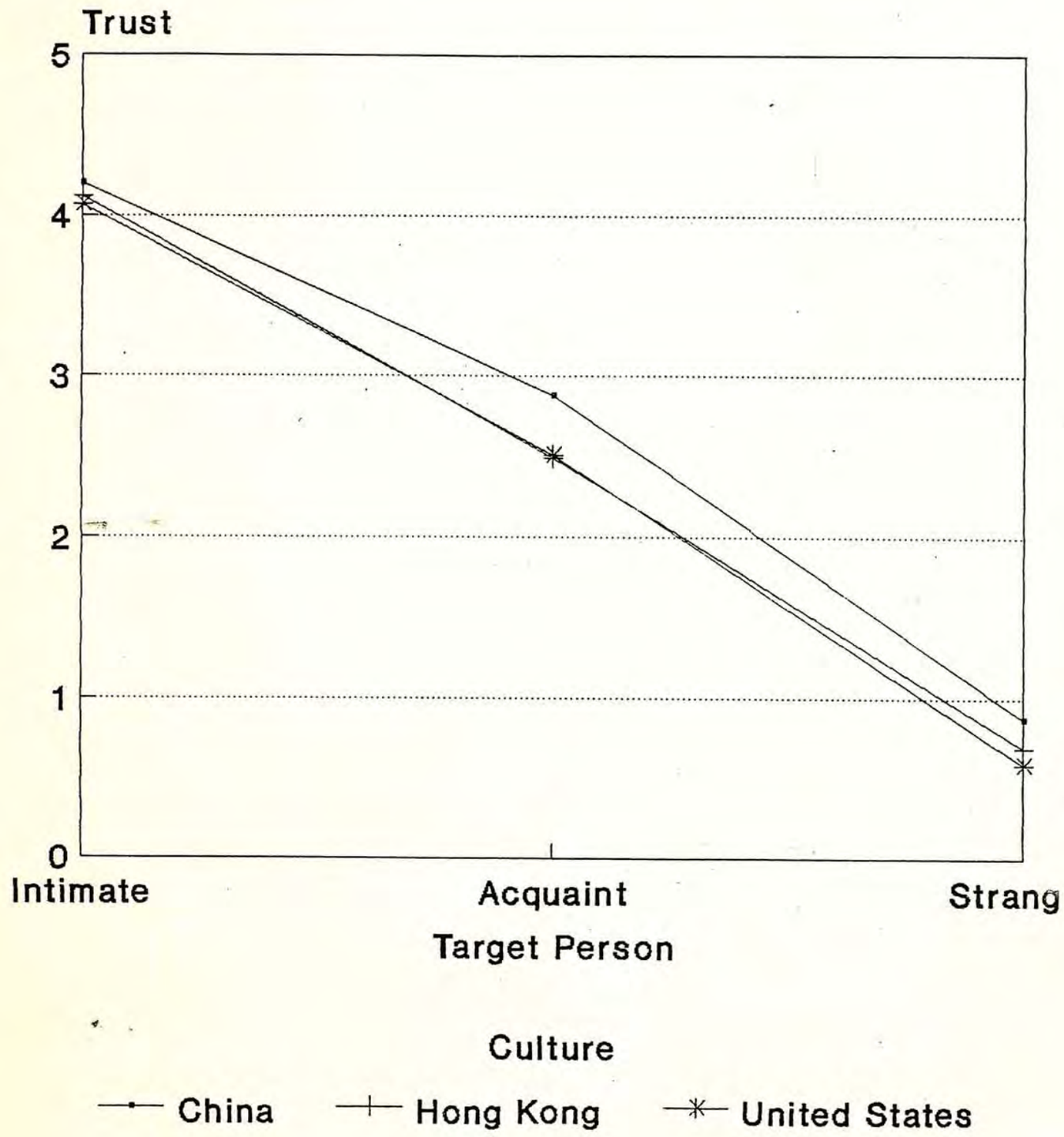

Figure 4.4